

COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT/REPORT

As part of this Record of Decision, comments on the *FEIS/R* received during the public comment period in February and March 2000 and the responses to these comments are included below. Twenty-five individuals and groups submitted a total of approximately 330 comments on the *FEIS/R*. Copies of the comment letters (and in one case a 120 page booklet) are on file and available for review at the Caltrans District 4 Office, 111 Grand Avenue, Oakland.

The paraphrased comments and the project sponsor's responses are presented in the order the comment letter was received. The date of the comment letter, the commentor's name and the affiliation, if any, are followed by the numbered paraphrased comments on the Final Environmental Impact Statement/Report and the appropriate response.

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1 Simon Palmer

By letter dated February 19, 2000, Simon Palmer, stated:

Comment 1

A concern over the minimal reference to noise concerns and the assumptions made to justify so little attention being paid to this severely negative aspect of the project. As US 101 is widened, first of all in the '80s and now again, it increasingly adversely affects the quality of life of thousands on both sides of the freeway, particularly with respect to noise.

In addition the moment the soundwalls went up the noise levels increased substantially due to reflected noise. Readings were taken adjacent to the freeway after the walls were built, improved. But what was ignored then and is being avoided now is consideration of the noise impact on those who live higher above and in line-of-sight of the freeway. Furthermore neither of the test sites quoted in the FEIS/R in any way resemble the (approximately) mile-long 'canyon' South of San Pedro Road where the noise effect is most severe.

Response

Thank you for taking the time and effort to review the FEIS/R and for contributing to the public process by sending your comments.

Caltrans and the Marin CMA have committed to study the noise issue in the hillsides in more detail. The upcoming noise investigation by an independent consultant is underway. The noise consultant will evaluate all the neighborhoods within the project limits.

2 Elissa Giambastiani, San Rafael Chamber of Commerce

By letter dated March 1, 2000, Elissa Giambastiani, San Rafael Chamber of Commerce stated:

Comment 1

The San Rafael Chamber of Commerce is fully supportive of the Southbound/Reversible HOV Lane Gap Closure project and urges Caltrans to begin the construction phase as soon as possible.

Response

Comment noted and appreciated. Thank you for taking the time and effort to review the FEIS/R and for contributing to the public process by sending your comments.

Comment 2

The San Rafael Chamber of Commerce is concerned about the loss of affordable housing. The loss of housing created by this project will intensify the shortage of affordable workforce housing in our community. Rental housing, in particular, is scarce. We would like assurances that Caltrans will make every effort to find replacement properties. The City of San Rafael has asked Caltrans to look for opportunities to assemble parcels in order to replace the housing units lost to the HOV project. We fully support the City's recommendation regarding this issue.

Response

Caltrans shares the concern about affordable housing. As described in Volume II of the FEIS/R, consideration will be given to assembling parcels, moving existing structures, the use of excess right of way for lost parking and other uses.

The residents to be displaced will be assigned a relocation advisor to see that all payments and benefits will be fully utilized. The program could include moving costs, purchase supplements, rental supplements, last resort housing and other information. Each resident will be made aware of their rights, entitlements and eligibility under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Appendix H of Volume I of the FEIS/R has a fuller discussion of the relocation process.

Comment 3

We also are concerned about business displacement. The commercial vacancy rate in San Rafael is at an all-time low. We feel that it is imperative that search expenses for business relocation be fully compensated.

Response

Owners of affected businesses that require relocation or displacement will be made aware of their rights, entitlement and eligibility under the *Uniform Relocation Assistance and Real Property Acquisition Act of 1970*. All displacees will be given the State booklet entitled *Your Rights and Benefits As A Displacee Under the Uniform Relocation Assistance Program*. This booklet summarizes the State's program of acquisition and relocation assistance.

Comment 4

In addition, many of the customer parking areas fronting businesses on West Francisco will be eliminated by the project. We would like Caltrans to address its plans to assemble other parcels to replace the lost parking.

Response

Consideration will be given to assembling parcels, moving existing structures, the use of excess right of way for lost parking and possible additional retail uses. Along Francisco Boulevard West, Caltrans proposes to provide parking on adjacent parcels to replace the loss of commercial parking. Caltrans currently owns one parcel and may acquire more. On Lincoln Avenue, loss of apartment parking in the rear of the parcels may be replaced converting occasional adjacent parcels from apartments into shared parking spaces.

3 David Bernardi, City of San Rafael Department of Public Works,

By letter dated March 3, 2000, David Bernardi, City of San Rafael Department of Public Works, stated:

Comment 1

Section 3.12.5, "Non-Motorizes Transit," in Volume I of the FEIS/R incorrectly characterized the bike lane between intersection of Andersen Drive and Puerto Suello Hill as "existing." Actually, there is only 1.4 miles of existing bike lane, the remaining segments are proposed.

Response

See response to Comment 2 below

Comment 2

Figure 9 of Volume I of the FEIS/R also refers to bike routes as existing when, in fact, they are only proposed.

Response to Comments 1 and 2

Your comments and concerns are appreciated and your observation is correct. Most of the bike routes shown on Figure 9, "Existing Bike Lanes" in Volume I of the FEIS/R are proposed. Under Section 3.12.5, "Non-Motorized Transit" in Volume I, the FEIS/R acknowledges that "existing and proposed trails were included in the traffic study area." Caltrans was concerned that labeling the accompanying figure as "proposed and existing" trails would misrepresent Caltrans as proposing the construction of these bike lanes as part of the 101 HOV Gap Closure Project. The bike trail improvements throughout San Rafael are outside of scope of the Marin 101 HOV Lane Gap Closure Project. Caltrans apologizes for confusion regarding Figure 9.

Comment 3

The San Rafael Bicycle and Pedestrian Advisory Committee recommends reconfiguring the Lincoln Avenue undercrossing to accept two-way bicycle and pedestrian traffic.

Response

Unfortunately, improving or replacing bicycle or other facilities that are not affected by the construction of the Southbound/Reversible HOV Lane Gap Closure Project can not be included as a part of this project. Converting the Lincoln Avenue undercrossing from two lanes to one was not originally analyzed as an element of the Marin 101 HOV Lane Gap Closure Project. As such, it was not part of any Traffic Study Report for this project. There is no funding committed to bicycle improvements beyond relocating or replacing facilities affected by the project.

4 Anne Coyne

By letter dated March 8, 2000, Anne Coyne stated

Comment 1

The environmental document for the Highway Project 101 in San Rafael is inaccurate and proves that our concerns as residents on San Rafael Hill were not addressed. Since the soundwalls were erected the noise reflected up in the hills dramatically increased. This report does not address the concerns of the residents *living up in the hills*. I would like a response from you stating why your agency continually ignores the residents who have lived here before the walls went, and what your agency plans to do to rectify the noise problem.

Response

The traffic noise discussion under "Measures to Minimize Harm" in the Record of Decision for this project discusses the issue of reflected and parallel-reflected noise and the upcoming noise evaluation.

Section 3.14.3 of the FEIS/R also discusses reflective noise in detail. There have been numerous studies of reflective traffic noise. The U.S. Department of Transportation, Volpe National Transportation Systems Center, completed two parallel barrier studies during the period of October 1986 through April 1994. These studies have shown no reflection problems. In fact, there has been no data indicating any noticeable, reflective noise problems presented to Caltrans. Section 3.14.3 of the FEIS/R discusses reflective noise in detail.

Together with the Caltrans studies, it is our conclusion that parallel barrier sites with a width-to-height ratio of 10 or more would have a degradation of less than 3 dBA, an imperceptible noise increase over a single barrier.

Furthermore, it is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

Caltrans and the Marin CMA have also committed to study the noise issue in the hillsides in more detail. Planning for the upcoming noise evaluation to be conducted by an independent consultant is underway. Caltrans, along with Marin citizens Patrick Murphy, Bob Cooper, and Simon Palmer, and the Marin CMA are working to define the details of the scope of the this noise investigation.

5 Jonathan Toste

By letter dated March 8, 2000, Anne Coyne stated:

Comment 1

The missing element of the Marin 101 HOV Lane Gap Closure Project failure to provide a bicycle right of way along the HOV lane, especially along the Lincoln Avenue corridor.

Response

Thank you for your interest in this project. Unfortunately, improving or replacing bicycle or other facilities that are not effected by the construction of the Southbound/Reversible HOV Lane Gap Closure Project is not possible. Providing a bicycle lane (s) on or adjacent to US 101 was not a feature of this project. There is no funding committed to bicycle improvements beyond relocating or repairing facilities affected by the project.

Comment 2

The Marin 101 HOV Lane Gap Closure Project also fails to connect the bike path over Puerto Suello Hill on the west side of US 101 to Villa Avenue on the east side of the freeway. The EIR does not admit to or mitigate a solution to these severe losses.

Response

Comment noted. Same response as response to Comment 1 above.

6 John Diamante, Threshold Environmental Center

By letter dated March 13, 2000, John Diamante, Threshold Environmental Center stated:

Comment1

For ecological and economic reasons primacy should be given to repair and resumption of railroad passenger service. The effect of an operating passenger railroad would relieve congestion and removes need for this project, as well as for the Novato-Petaluma "Narrows" project and for the widening of Route 37 to four lanes. The railroad must have superior claims to funds and resources over highway projects geared to the past and degrading to the Marin environment.

Response

Your comment is appreciated. The Draft EIS/R and Section 2.3, "Alternatives Considered and Withdrawn," in Volume 1 of the Final EIS/R include an evaluation of alternate transit options, including rail, ferry and buses. The evaluation determined that the rail transit option did not meet the project purpose and need. See Section 2.3.9, "Transit Only Options," in Volume I of the FEIS/R for further details.

7 Don Collins, Don Collins Motors

By letter dated March 10, 2000, Don Collins, Don Collins Motors, stated:

Comment 1

A concern that starting construction of the Southbound/Reversible HOV Lane Gap Closure Project prior to November 2000 will influence the voters of Marin and Sonoma Counties to vote against sales tax increases to pay for transportation projects.

Response

Thank you for your observations. Caltrans sets the schedule of the Marin 101 HOV Lane Gap Closure Project based on a variety of complex factors and strives to meet this schedule. Caltrans is dedicated to providing an efficient transportation facility for the people of California as quickly as possible. The potential effect on voters is not a scheduling factor.

8 Karen Nygren, Marin Conservation League

By letter dated March 13, 2000, Karen Nygren, Marin Conservation League, stated:

Comment 1

The FEIS/R states that the overall project goal is to implement the Ultimate HOV Lane Gap Closure Alternative. This goal is not the same as that of the Marin elected officials and the Marin Congestion Management Agency who believe that the ultimate project should be the Southbound/Reversible HOV Lane Gap Closure Alternative. There is no justification in the document to reach the conclusion that the Ultimate HOV Lane Gap Closure Alternative should be chosen as the ultimate project.

Response

You are correct that Caltrans and the FHWA have identified and are approving the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. The Ultimate HOV Lane Gap Closure Alternative was not identified as the Preferred Alternative in the FEIS/R and is not the approved alternative of this Record of Decision. A future environmental compliance process would be required prior to construction of the Ultimate HOV Lane Gap Closure Alternative.

Comment 2

In two areas adjacent to West Francisco Blvd. and along Lincoln and Brookdale Avenues, sufficient highway right of way for the Ultimate HOV Lane Gap Closure Alternative will be acquired including 21 residential buildings (along Brookdale and Lincoln) displacing 45 families

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. Caltrans will acquire rights of way from property owners on Brookdale and Lincoln Avenues for the relocation of the rail corridor to the west. The NWPR corridor is a major public transportation facility and must be relocated to a location that will provide flexibility for further highway and/or rail improvements and ensure that the rail facility will not have to be relocated again.

The Southbound/Reversible HOV Lane Gap Closure Alternative requires the relocation of Francisco Boulevard West and the acquisition of commercial property affecting businesses and parking. Adequate right of way for an interim clear recovery zone will ensure Caltrans will not need to repeat the relocation of West Francisco Boulevard and will not impact the businesses a second time.

Comment 3

It is possible that a significant portion of the expense of this project could be eliminated if Caltrans would need to purchase only a portion of the right of way for the Southbound/Reversible and not the "Ultimate" Alternative. The "Ultimate" Alternative is extremely disruptive and costly. We recommend that, to speed the project along, the Record of Decision include right of way acquisition adequate for the Preferred Alternative; the Southbound/Reversible HOV Lane Gap Closure.

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. As a requirement of the Southbound/Reversible HOV Lane Gap Closure Alternative, Caltrans will acquire rights of way from property owners on Brookdale and Lincoln Avenues for the relocation of the rail corridor to the west. The NWPR corridor is a major public transportation facility and must be relocated to a location that will provide flexibility for further highway and/or rail improvements and ensure that the rail facility will not have to be relocated again.

Comment 4

Caltrans proposes to widen the southbound San Rafael Viaduct by 10.5 feet. Currently there are approximately 28 to 30 additional feet of unused space. With a reversible HOV lane as the ultimate project, only one extra lane with a buffer zone would be needed. The widening of the viaduct should not be necessary. This structure also is a very short segment of roadway; thus a design exception should be considered. Possibly \$5 million could be saved on this project by not widening this Viaduct. Furthermore, constructing a wider viaduct would require additional columns on the outside. Visually, this might be unacceptable to the City of San Rafael. This document contained no analysis of the visual impact of widening the viaduct.

Response

The reversible HOV lane on the southbound San Rafael viaduct structure will be isolated from the northbound lanes. An emergency vehicle lane/shoulder is required, adjacent to the HOV lane, when the HOV lane is operating in the northbound direction. In addition, the moveable barrier requires some space. Finally, a standard shoulder on the west side of the viaduct for southbound traffic requires additional width.

The widening will remain within the existing right of way and not impact current activities (parking, traffic flow) beneath the viaduct structure. The columns to support the widening will line up with the existing columns of the southbound viaduct structure and are located within the state right of way.

The *Visual Resources Technical Report*, referenced in Volume I of the FEIS/R evaluated the general widening of the San Rafael Viaduct structure as a feature of the Ultimate HOV Lane Gap Closure Alternative. It concluded that the widening would increase shade and limit potential planting options beneath the viaduct and that any loss of natural light could be compensated for by the addition of artificial lights if necessary. The report concluded the effects of the widening of the viaduct structure would be minor.

Comment 5

The reflective noise problem has not been adequately addressed in the document. Affected residents have threatened litigation, which could delay the entire project. No solutions to this noise issue are included in the document. The FEIS/R only states that Caltrans will continue to do further study. Agreeing to construct sound walls with the more costly acoustical, sound absorbing materials might be more cost efficient than paying litigation fees. Also, this would speed up the project. We believe this would satisfy the concerned and affected residents. One other alternative to reduce reflective noise and avoid future public costs of building another wall would be to build the new walls farther apart at Brookdale putting them on the west rather than east side of the railroad right of way.

Response

The Noise Impact Report for this project was done under an approved state-of-the-art methodology, which is still acceptable, and which does not take into account reflective noise for the purposes of impact identification only. Section 3.14.3 of the FEIS/R discusses the reflective noise issue in detail with reference to various reflective noise studies.

On the issue of reflective noise, Caltrans has done two very detailed studies, one along Route 405 in the Los Angeles community of Brentwood, and another along Highway 99 in south Sacramento. These studies dealt with the acoustical performance of parallel noise barriers and the possibility of noise reflection problems. These studies were performed under carefully documented “real world” conditions and showed no conclusive results of reflection problems. However, the studies did clearly demonstrate the profound effect of meteorological conditions on traffic noise levels.

There have been other studies of reflective noise. The U.S. Department of Transportation, Volpe National Transportation Systems Center, completed two parallel barrier studies during the period of October 1986 through April 1994. The studies were funded by the highway agencies of seventeen states, including California. The first study examined the performance of two parallel experimental highway noise barriers constructed on opposite sides of a two-lane asphalt service road at Dulles International Airport near Washington, D.C. The second study was done along Interstate 495 in Montgomery County, Maryland. It measured parallel barrier degradation under more realistic yet still severe conditions of free-flowing traffic but with a width-to-height ratio of 9:1. These studies also showed no conclusive results of reflection problems. In fact, there has been no data of noticeable, reflective noise presented to Caltrans. All the noise studies conducted by Caltrans and others have not shown any noticeable noise increase due to reflections.

Together with the Caltrans studies, it is our conclusion that parallel barrier sites with a width-to-height ratio of 10 or more would have a degradation of less than 3 dBA, an imperceptible noise increase over a single barrier. All these reflective noise studies clearly indicate a degradation of less than 3 dBA at parallel barrier sites with a width-to-height ratio of 10 or more.

Furthermore, it is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

However, Caltrans and the Marin Congestion Management Agency (Marin CMA) have committed to further evaluate the noise issue in San Rafael. This evaluation will refine the design of the newly proposed noise barriers on US 101 and address possible reflected noise at homes on the hillsides above and behind the noise barriers.

Caltrans and the Marin CMA are still working on the details of the scope of work. An independent consultant has been selected. They have been asked to measure the existing noise levels on the hillsides, collect data on traffic and meteorology, calibrate the noise model, predict future noise levels at homes on the hillsides with and without the proposed new noise barriers. The noise consultant will be asked to explore every possibility for noise abatement including, but not limited to: selection of sound absorbing materials; new noise barriers, if warranted; modified noise barrier designs; as well as extensive landscaping where future predicted noise levels for outside residential use will approach or exceed 67 dBA, Leq (h) due to traffic noise from US 101.

As for building the soundwalls farther apart, once the project is fully constructed, all parallel soundwalls will have the optimum 10:1 width-to-height ratio with the exception of Barrier S633 at Linden Avenue Undercrossing. The width-to-height ratio (W/H) at that location will be 9.5:1. Since this is a very short section and the W/H ratio is close to the acceptable ratio, no special barrier treatment is required at this location.

Comment 6

The map on page 46, Figure 9, showing the existing bicycle lanes is inaccurate. Only 1.25 miles exist; one mile on Anderson Drive is striped for Class II and the Merrydale lane. The others that are shown do not exist or are not striped. The document should include a new map.

Response

Your observation is correct. Most of the bike routes shown on Figure 9, "Existing Bike Lanes" in Volume I of the FEIS/R are proposed. Under Section 3.12.5, "Non-Motorized Transit" in Volume I, the FEIS/R acknowledges that "existing and proposed trails were included in the traffic study area." Caltrans was concerned that labeling Figure 9 as "proposed and existing" trails would misrepresent Caltrans as proposing the construction of these bike lanes as part of the 101 HOV Gap Closure Project. Apology is offered for the confusion regarding Figure 9.

Comment 7

The EIR/EIS implies that the Southbound/Reversible HOV project is fully funded and it is not. The design and engineering costs are not included. We understand that Caltrans traditionally costs out a project only using construction costs, and not the support costs. It is important with this Gap project that all of the cost estimates include the design and engineering expenses so the public and decision makers can determine the amount of funding that is still needed to complete the project, including landscaping and soundwalls.

Response

A breakdown of the estimated costs associated with the Southbound/Reversible HOV Lane Gap Closure project, including funds programmed and required, is as follows:

	Phase 1 – Southbound HOV Lane	Phase 2 – Reversible HOV
Lane		
Construction	\$40,400,000	\$25,700,000
R/W	22,600,000	200,000
Moveable Barrier Vehicle (Operations/Maintenance)	- 0 -	2,200,000
Support	15,400,000	8,500,000
Total	\$78,400,000	\$36,600,000
Programmed (STIP)	- 78,400,000	- 3,450,000
TEA 21 Earmarked Funds	- 0 -	- 5,250,000
Additional Funds Required	- 0 -	\$27,900,000

9 Jerome M. Kuykendall, Golden Gate Bridge, Highway and Transportation District

By letter dated March 14, 2000, Jerome M. Kuykendall, Golden Gate Bridge, Highway and Transportation District stated:

Comment 1

Volume II of the FEIS/R (page 14) states that HOV lanes. "would improve travel times for buses." It does not quantify these claims. While it may be assumed that travel times for buses would decrease with a continuous HOV lane, there is no information of travel timesaving for buses between the three project alternatives. Further, there are no projections that attempt to determine any consequential effect on transit patronage.

Response

Thank you for your comments. Transit times for Golden Gate buses would be approximately the same as for other vehicles using the HOV lanes. *Table 17- HOV Lane Delay Times* on Page 83 of the FEIS/R compares the peak period delay times for the No Build and the three Build Alternatives for the years 2000 and 2010. The difference between the delay times of the Build and the No Build Alternatives is the time savings of the HOV lane. The buses would receive these same benefits.

Comment 2

District assumes FEIS/R is referring to District's Short-Range Transit Plan (SRTP) as a "5-year plan for increased (bus) ridership" (page 16). District's SRTP forecast for a ten-year period is presented for the limited purposes of identifying the financial viability of maintaining existing GGT bus and ferry services principally as means for managing traffic congestion on the Golden Gate Bridge.

Response

Comment noted.

Comment 3

Table 4 of the FEIS/R (page 43) estimates that approximately 385 persons per hour travel on buses during the southbound peak hour at Manuel T. Freitas Parkway. This table presents this as zero percent of the traffic on U.S. Highway 101. District believes bus traffic equals 4.6 percent of the U.S. Highway 101 traffic. Other values in this table should also be verified.

Response

The values in Table 4 are based on actual traffic counts conducted by the Office of Highway Operations in October 1993. The counts were forwarded to Thomson Traffic Engineering, which prepared the Table. Year 1993 data was used because it was the most recent data available at the time TTE initiated their traffic studies. The counts used for Tables 4 & 5 are traffic volumes observed on the days counted; the data in the Tables appears accurate, although there was "rounding-off" of the percentages, which inadvertently reduced small percentages to zero. The correct number for buses would be 0.2% or 11 observed with 385 persons assumed to be passengers.

There is one other correction regarding the Tables: One of the locations in Table 4 is shown as Manuel T. Freitas Parkway, but the count was actually made from the park & ride lot near Alameda Del Prado.

Comment 4

As referenced in comment no.8 in District's letter of August 19, 1997 on the Draft Environmental Impact Statement/Report, GGT operates approximately 48 buses per hour during the morning peak hour on southbound U.S. Highway 101 at Manuel T. Freitas Parkway. The Draft Environmental Impact Statement/Report and the FEIS/R (page 45) reports only 11 buses at this location. The information is assumed to include other bus operators along the U.S. Highway 101 corridor (i.e., District "Club Bus," airporter and charter bus services). District requests correcting this statement or validating field data collected.

Response

The data in the Tables reflects the traffic data that was actually counted in October 1993 and does include buses identified. Only buses were counted that were identified on the days traffic counts were made.

Comment 5

FEIS/R (pages 24 and 101) states that all three HOV Lane Gap Closure Project alternatives will increase "marine activity around Larkspur Ferry Terminal. " What impacts, if any, are anticipated to Golden Gate Ferry's commute operation?

Response

All build alternates will increase the short-term activity of several small barges and boats used to bring in the barges. It is expected that this will be of a limited and temporary nature. The placing of the barges will not impact the Larkspur Ferry Terminal more than occasional pleasure boat traffic. Small barges will be brought in at high tide, moored and then removed after the construction is complete. Exact time and duration of the barge usage are the prerogative of the Resident Engineer and the contractor and cannot be specifically forecast.

Comment 6

FEIS/R (page 22) incorrectly characterizes the Larkspur Ferry Terminal as a "park-and-ride" lot. The parking facility is provided for the exclusive use of ferry passengers on Golden Gate Ferry services to San Francisco. The information in the FEIS/R may be misleading and should be corrected.

Response

GGBHTD is correct in that the parking facility is not a federally designated Park and Ride facility, but only serves a similar purpose for ferry passengers.

Comment 7

FEIS/R (page 87) makes reference to "impact additional parking spaces at the new Irene Street Interchange on I-580. " As referenced in comment no.13 of District's August 19, 1997 letter, potential impacts to District property are not disclosed and should be clarified.

Response

Potential impacts from the Ultimate Alternative in this area were discussed in Volume 2 of the FEIS/R. The Ultimate Alternative is not the Preferred Alternative. Project plans indicate no loss to the GGBHTD property on the south side of I-580; most impacts would be on the north side of I-580.

Comment 8

Although both Volumes I and II of the FEIS/R (pages 114 and 17, respectively) correctly note that the proposed commuter rail plan on the Northwestern Pacific Railroad (NWPR) right-of-way is not a component of the Metropolitan Transportation Commission's (MTC) "Regional Transportation Plan" (as no funding presently exists for this project), the FEIS/R should acknowledge that this rail service proposal is referenced in MTC's "Bay Area Transportation Blueprint for the 21st Century. "

Right-of-way maps illustrated in Appendix A show parts of the NWP right-of-way to be within State right-of-way. District recognizes that State of California accepted a grant deed from Schultz Investment Company dated March 19, 1957 (Marin County Official Records, Book 1114, Page 426, recorded May 15, 1957) that appears to grant an interest in the portion of the right-of-way between Corte Madera Creek and California Park Hill and west of the centerline of the main tracks. However, District has a grant deed from David Porter to San Francisco and North Pacific Railroad Company (to which District is successor in interest) dated August 5, 1882 (Marin County Deeds Book 21, Page 196, recorded September 1, 1892) which conveys a right-of-way 100 feet wide, being 50 feet on each side of the centerline of the main tracks.

Response

Thank you for pointing out that the rail service proposal is referenced in MTC's "Bay Area Transportation Blueprint for the 21st Century." Caltrans reviewed studies related to currently programmed and funded projects in the project area. However, the Sonoma/Marin Area Rail Transit Commission (SMART) has been established and is currently proceeding with a Sonoma/Marin Rail Implementation Plan. Governor Gray Davis' proposed transit-funding plan includes \$37 million earmarked for a commuter rail service in Marin and Sonoma Counties. The project's estimated cost exceeds \$150 million.

Regarding the potential property ownership conflict involving the NWP right of way, clarification or resolution of property ownership is not properly a part of the EIS/R evaluation.

Comment 9

Table 1 of the FEIS/R (page 22) states three HOV Lane Gap Closure Project alternatives will relocate the "full width of (the) rail corridor." It is appropriate that Caltrans provide width in excess of California Public Utility Commission's minimum design criteria for railroads, 17 feet for tangents and 18 feet for curves, as a single track corridor between Paloma Avenue and the Puerto Suello Tunnel would permanently limit the operational flexibility of any future passenger commuter rail service planned for this right-of-way. Adequate right-of-way for ballast, drainage, and potential electrification must also be provided. HOV Lane Gap Closure Project should not restrict the operational flexibility of this potential transit corridor .

Response

Comment noted.

Comment 10

Volume II of the FEIS/R indicates (page 23) that several precautions were performed by Caltrans during recent construction of the northbound auxiliary lane between East Sir Francis Drake Boulevard on-ramp and the Bellam Boulevard off-ramp. District requests that Caltrans conduct a similar monitoring program of the integrity of the Cal Park Tunnel during the possible construction of the Ultimate HOV Lane Gap Closure Alternative.

Response

Caltrans will perform all future tests required to ensure stability of the tunnel prior to any construction for the Ultimate HOV Lane Gap Closure Alternative. Please note that selected alternative is the Southbound/Reversible HOV Lane Gap Closure Alternative not the Ultimate HOV Lane Gap Closure Alternative.

Comment 11

FEIS/R (page 84) states that all build alternatives will be compatible with development of rail transit on the NWP right-of-way. To this objective, District requires that all design criteria (e.g., grade, and radius of curvature) and infrastructure improvements (e.g., track, trestles, and conduit crossings) be replaced either "in-kind" or better than that which is existent.

Response

Comment noted

Comment 12

FEIS/R (page 95) makes reference to an "Upcoming Noise Evaluation" by Caltrans and the Marin Congestion Management Agency to "evaluate the noise issues in San Rafael." District requests this assessment consider the technical and financial feasibility of locating the proposed noise barriers on the west side of the relocated NWP right-of-way.

Response

Comment noted.

Comment 13

Table 1 of the FEIS/R (page 23) states that two HOV Lane Gap Closure Project alternatives will not include a new northbound U. S. Highway 101 to eastbound 1-580 connector. District

believes this improvement to be a critical design component of any HOV Lane Gap Closure Project alternative. This connector would enhance existing traffic conditions at the Bellam Boulevard interchange with I-580 and East Sir Francis Drake Boulevard interchange with U.S. Highway 101. Through traffic volumes on East Sir Francis Drake Boulevard are such that they impact traffic ingress and egress to and from the Larkspur Ferry Terminal at the Larkspur Landing Circle West intersection. Please refer to point no.40 in District's letter dated August 19, 1997.

Response

The new NB 101 to EB 580 connector is not in the scope of the Preferred Alternative, the Southbound/Reversible HOV Lane Gap Closure Alternative. This improvement is part of the Ultimate Alternative, which is not funded, but may be developed in the future depending upon available funding and need. The new US 101 to eastbound I-580 connector ramp will create a new access point to I-580 near US 101/I-580 interchange. FHWA gave approval of this new access point to I-580 as an integral part of the new I-580/Irene Street interchange as shown in Drawing U-4 of Appendix A (Project Mapping) in volume I of the FEIS/R. Since the new Irene Street interchange is an element of the Ultimate HOV Lane Gap Closure Alternative, therefore, this new direct connector ramp could not be included in the other alternatives; the Southbound Only HOV Lane Gap Closure Alternative and Southbound/Reversible HOV Lane Gap Closure Alternative.

Comment 14

Volume I of FEIS/R (page 3) states that the project will improve safety at the Lucky Drive off-ramp from southbound U.S. Highway 101. This appears to contradict Volume II statement (page 18) that "no basic changes to geometry will be made to the Lucky Drive to Sir Francis Drake interchange." Following a review of Appendix A, Project Mapping, there does not appear to be any geometric improvements to this off-ramp. How will safety at this off-ramp and adjacent bus pad utilized by GGT bus services be improved?

Response

FEIS/R Volume II statement, Page 18 correctly states that there would be no basic changes to geometry at the Lucky Drive to Sir Francis Drake interchange. However as stated in the FEIS/R, Volume II, page 19, "The addition of a HOV lane will reduce the traffic volume in the mixed-flow lanes allowing better bus access". With less traffic volume in the mixed-use lanes, merging between the southbound US 101 Sir Francis Drake on-ramp and the southbound off-ramp near Lucky Drive will be improved.

Comment 15

FEIS/R frequently states that the southbound on-ramp from Sir Francis Drake Boulevard will be widened to two lanes. This appears to contradict Volume II statement (page 18) that "no basic changes to geometry will be made to the Lucky Drive to Sir Francis Drake interchange." Following review of Appendix A, Project Mapping, there is no mapping of this improvement for "Southbound Only," "Southbound/Reversible" or "Ultimate" HOV Lane Gap Closure Alternatives. District is interested in any geometric improvement to this southbound off-ramp, the affects on traffic operations at the intersection of Sir Francis Drake Boulevard at Eliseo Drive/Barry Way, and the southbound Lucky Drive off-ramp and adjoining bus pad. Improvements to roadway geometry and traffic operations at these locations, as a direct result of any HOV Lane Gap Closure Alternative, are of significant importance to the efficient operations of GGT bus services.

Response

The FEIS/R does not states that the southbound on-ramp from Sir Francis Drake Boulevard will be widened to two lanes. However the new southbound US 101 connector to I-580 would be widened to two lanes. The southbound US 101 Sir Francis Drake Boulevard on-ramp will be relocated to the west when the mainline is widened and the relocated on-ramp will have only one lane. Please refer to our response in comment # 14. Traffic operational analysis of Sir Francis Drake Boulevard at Eliseo Drive/Barry Way is beyond the scope of this project.

Comment 16

Volume II of the FEIS/R (page 13) states that Caltrans would consider upgrading bus pads at North San Pedro Road and Lucky Drive. District believes safety improvements to these bus pads should be considered a common design feature with all three project alternatives.

Response

FEIS/R Volume II, Page 13 states that “Only one bus pad located at Lucky Drive in Larkspur is affected and only for the Ultimate Project HOV Lane Gap Closure Alternative. Project mapping shows the proposed geometrics for the Southbound Only HOV Lane Gap Closure Alternative and the Southbound/Reversible HOV Lane Gap Closure Alternative do not affect the existing bus pads at Lucky Drive on the northbound side of the freeway. Similarly, the proposed geometrics for the Southbound Only HOV Lane Gap Closure Alternative and the Southbound/Reversible HOV Lane Gap Closure Alternative do not affect the existing bus pads at North San Pedro Road in San Rafael.” Since the Southbound/Reversible HOV Lane Gap Closure Alternative and Southbound Only HOV lane Gap Closure Alternative do not affect the existing bus pads, therefore improvements to these existing bus pads cannot be considered for these two alternatives.

Comment 17

FEIS/R (page S-5) states that the "Southbound/Reversible" alternative will be implemented "in a second stage. " No explanation of this statement is provided.

Response

FEIS/R (Page S-5) states that the “Southbound/Reversible alternative“ will be implemented ‘in a second stage. This statement is explained as follows – “The Southbound/Reversible HOV Lane Gap Closure Alternative proposes to build a southbound/reversible HOV lane on US 101 from Lucky Drive in Corte Madera to North San Pedro Road in San Rafael in Marin County. This alternative will be constructed in two phases: Phase 1 proposes to construct a southbound HOV lane from North San Pedro Road to Lucky Drive including replacement of the southbound US 101 to eastbound I-580 direct connector ramp. Phase 2 proposes to use the planned southbound HOV lane to construct a reversible HOV lane with a moveable barrier to provide an HOV lane both in the northbound and southbound directions along US 101, thereby completely closing the HOV gap.”

Comment 18

FEIS/R (page 100) states that "HOV bypass lanes at on-ramps will be required anytime an interchange or ramp is modified. " District requests consideration be given to installing an HOV lane on the right side of the northbound on-ramp at (East) Sir Francis Drake Boulevard. This bypass lane would considerably improve the operations of nine GGT Ferry Feeder bus routes from the Larkspur Ferry Terminal.

Response

As described on Page 9 and 10 of Volume I of the FEIS/R, the Southbound Only HOV Lane Gap Closure Alternative and Southbound/Reversible HOV Lane Gap Closure Alternative do not affect the geometrics of the northbound on-ramp from Sir Francis Drake Boulevard East to US 101. (Appendix A, project mapping, Drawing # S-2 and R-2). An HOV bypass lane at this on-ramp cannot be considered under the above two alternatives, since existing geometrics of the on-ramp are not affected by the above two alternatives. However, as shown in the Appendix A, project mapping, Drawing # U-2, the provision of an HOV bypass lane for the Ultimate Project HOV Lane Gap Closure Alternative would be considered.

Comment 19

Volume II of the FEIS/R (page 15) states that Caltrans is willing to discuss the possibility of improving access for buses on West Francisco Boulevard. District appreciates this assistance and believes improvements to allow buses to serve this arterial should occur as part of the Gap Closure Project.

Response

As explained on Page 15 of Volume II of the FEIS/R, Caltrans is willing to work with the Golden Gate Bridge, Highway and Transportation District (GGBHTD) and City of San Rafael, during the final design phase, to explore the possibility of improving access for buses on Francisco Boulevard West. West Francisco Boulevard will provide space for two lanes, shoulders and a sidewalk. This should provide enough space for bus operations.

Comment 20

FEIS/R lacks any discussion of traffic related impacts occurring at the ramps and intersections to and from U. S. Highway 101. Volume II of the FEIS/R (page 4) states that four intersections in San Rafael were evaluated, even though this information was not presented. This document also states (page 14) that HOV lanes "would improve access to the Larkspur Ferry Terminal " without any quantification of these (travel time) benefits.

District is most concerned with the direct impact to traffic operations, as a direct result of the HOV Gap Closure alternatives at the intersections at Second and Hetherton Streets (San Rafael), Sir Francis Drake Boulevard and U .S. Highway 101 (Greenbrae), and Sir Francis Drake Boulevard at Eliseo Drive/Barry Way (Greenbrae). Since a FEIS/R should identify the "impacts" of these four freeway alternatives, the lack of information pertaining to traffic operations at these intersections prevents appropriate comparison of alternatives. Please reference comments no.3 and no.33 in District letter of August 19, 1997.

Response

Four intersections were analyzed by TTE, Inc. and are included in their report. Freeway operational analysis was conducted along the mainline along US 101 for year 2010 for Southbound Only HOV Lane Gap Closure Alternative, Southbound/Reversible HOV lane Gap Closure Alternative and Ultimate HOV Lane Gap Closure Alternative. Please refer to Page 83 of the FEIS/R Volume I. All these alternatives show reduction in traffic delay during the peak traffic periods for the HOV vehicles as compared to the No-Build Alternative. Also, all these alternatives show reduction in traffic delay during the peak traffic periods for the mixed-flow vehicles as compared to the No-Build Alternative. Since closing the gap in the HOV lanes would reduce the projected traffic delay for HOV as well as mixed-flow vehicles, so it is anticipated that the projected traffic operations at Larkspur Ferry Terminal are likely to be improved. Use of the HOV lane should shorten delays for buses and there will likely be a small benefit for vehicles in the mixed-use lanes.

Mainline highway improvements will generally improve operations on city streets in the vicinity of the freeway. The City of San Rafael has completed a restriping of Second and Hetherton that requires buses to drive around the block rather than cross traffic. Discussions on bus operations on city streets should be addressed to the San Rafael Department of Public Works.

Comment 21

Table I of the FEIS/R (page 22) states that three HOV Lane Gap Closure Project alternatives will result in the loss of "220 parking spaces" if a Gap Closure Project alternative and the NWP "rail transit project are built. " FEIS/R should clarify where these parking spaces are currently located.

Response

The project will result in an estimated loss of 220 parking spaces in the areas of West Francisco and Brookdale-Lincoln Avenue. Construction in the West Francisco area will remove approximately 95 percent of the total impacted parking, although considerable parking will be replaced on adjacent or nearby parcels that will become available before and after construction. The Redevelopment Agency of San Rafael is working to provide parking for businesses in the West Francisco Boulevard area. Parking impacts in the Brookdale-Lincoln areas are much less severe, but some new replacement parking will be created. Staged purchase and clearance of parcels in the Brookdale-Lincoln area will ameliorate the parking impacts to some degree. There may also be a minor loss of parking adjacent to the Irene Street interchange on the north side of I-580, if the Ultimate Alternative is eventually constructed.

Comment 22

Drawings S-I, R-I, and U-I of Appendix A (project Mapping) of the FEIS/R do not indicate any improvements to the shared pedestrian/bicycle path situated on the west side of U.S. Highway 101. Volume II of the FEIS/R (page 15) states that "minor improvements ' will be made to the southbound bicycle lane. " Currently pedestrians who use GGT bus services at the Lucky Drive bus pad utilize this path. It requires drainage, lighting and pavement improvements.

Response

It is correct that the FEIS does not discuss the bicycle path on the west side of the bridge. It will be relocated and it will be repaved south of the bridge. Possible improvements, such as lighting and a rest area, are possible amenities that may be considered after negotiations with BCDC.

Comment 23

FEIS/R (page 103) states that the widening of the Sir Francis Drake Boulevard southbound on-ramp will result in a temporary closure of the bicycle and pedestrian path on the west side of the highway. Similarly, FEIS/R (page 84) refers to the demolition and reconstruction of the Greenbrae pedestrian overpass. In consideration of GGT bus passengers that make extensive use of these pedestrian facilities and the anticipated deterioration in the ability to attract bus passengers to the Lucky Drive bus pad, District requests the following information:

- What is the anticipated duration of the temporary closure of the bicycle/pedestrian path on the west side of the highway?
- What is the anticipated duration required for demolition and reconstruction of the Greenbrae overpass?
- Will the above two projects be staged in order to minimize impacts to pedestrian and bicycle traffic?
- What diversion routes and/or accommodations will the project provide to transit-dependent passengers (e.g., Redwood High School students) during these construction projects?

Response

The existing bicycle/pedestrian path along the southbound on-ramp from Sir Francis Drake Boulevard to US 101 will require temporary closure of six months or less during construction work at the on-ramp.

At Greenbrae Pedestrian Overcrossing (POC), the Southbound/Reversible HOV Lane Gap Closure Alternative will require removal of the center overcrossing supports and construction of a freespan overcrossing. It is anticipated that the construction work at this POC could be completed in one year or less time duration.

These two projects; construction project at southbound on-ramp from Sir Francis Drake Boulevard to US 101 and at Greenbrae POC will be staged as explained further. The southbound on-ramp construction project will be part of the Phase 1 and will be constructed first. The Greenbrae POC construction project will be part of the Phase 2 and will be constructed at a later date. The staging of these two construction projects will minimize temporary construction impacts to pedestrian and bicycle traffic using the existing bicycle/pedestrian path along the southbound on-ramp and Greenbrae POC.

Caltrans will establish alternative routes and clear signage at key junctions to signal pedestrians and bicyclists when each path is closed and what alternative routes to take. For work along the southbound on-ramp, three detours (Detour A, Detour B and Detour C) are being considered. Detour A would utilize city streets: Lucky Drive, Doherty Drive, Magnolia Avenue, Bon Air Road and Sir Francis Drake Boulevard. . Detour B would also utilize city streets: Nellan Avenue, Wornun Drive, Redwood Highway and then continue same as the Detour A. Detour C would utilize the Greenbrae POC continuing north along the Redwood Highway to the sidewalk which runs along the northbound off-ramp to Sir Francis Drake Boulevard East. This connects to an existing wooden path underneath the Corte Madera Creek bridges where it becomes a

paved path to the northern end of southbound on-ramp structure from Sir Francis Drake Boulevard to US 101. For work along the Greenbrae POC ramp, either Detour A or Detour B as described above, would be considered. In addition to providing alternative route and clear signage, Caltrans is considering doing some of the construction work at night to minimize impacts to the vehicle users during day and this would also benefit these path users. During the final design phase, Caltrans will closely work with the Marin County, Department of Parks, Open Space & Cultural Services for selection of proper alternative routes and signage for the benefit and convenience of bicyclists and pedestrians.

10 David Coleman

By letter dated March 20, 2000, David Coleman stated:

Comment 1

The assessed value, including land and improvement values, is listed in the Final Environmental Impact Statement/Report as \$3,556,874. This is not equivalent to replacement values. A conservative estimate would be \$13,050,000. This does not include equipment, landscaping, etc.

Response

Your comments and concerns are noted. You are correct that the assessed value does not represent the replacement costs. Section 2.2, "Alternatives Considered," in Volume I of the FEIS/R indicates the estimated right of way costs for the entire Southbound/Reversible HOV Lane Gap Closure Alternative are \$22,000,000. This includes estimates for the cost of acquisition, utility relocation, relocation assistance, clearance/demolition, and title and escrow fees.

Comment 2

The FEIS/R states the project will not divide existing neighborhoods and that there are comparable replacement dwellings. The FEIS/R also indicates that adverse economic impacts are minor and temporary and that the proposed project does not have significant socioeconomic impacts. However an historic neighborhood dating back to the 1800s will be divided imposing physical and financial hardship on the remaining neighbors, who have no recourse

Response

Your comment noted. The Brookdale Avenue neighborhood and individual Brookdale Avenue residences were evaluated by architectural historians, see Section 3.11.5, "Historic Architectural Resources" in Volume I of the FEIS/R. The State Historic Preservation Office concurred that no structures were eligible for the National Register of Historic Places.

Caltrans is required to relocate the rail right of way to the west, affecting the residences on the east side of Brookdale Avenue. Caltrans landscape architects have proposed a landscaped park-like setting for the excess property on the east side of Brookdale Avenue.

Comment 3

During a public hearing, a Caltrans representative stated that displaced persons would be taken care of and that the facilities of the displaced persons would be replaced in kind.

Response

The residents to be displaced will be assigned a relocation advisor to see that all payments and benefits will be fully utilized. The program could include moving costs, purchase supplements, rental supplements, last resort housing and other information. Each resident will be made aware of their rights, entitlements and eligibility under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Appendix H of Volume I of the FEIS/R has a fuller discussion of the relocation process.

A review of sources of information for the evaluation of property availability showed that there are adequate replacement properties for owner-occupied single family residences and tenant-occupied apartments in the City of San Rafael. If it would be necessary to go to a secondary replacement area to find replacements for rental duplexes and single family residences. The secondary area would be Larkspur, San Anselmo and Fairfax.

Comment 4

The relocation of the NWPR right of way leads to the destruction of 45 homes even though there are no specific plans or schedule for a rail transit project in this right of way. Caltrans could execute any legal instrument to ensure that the NWPRR would be preserved when the rail becomes a viable transit project and extend the destruction of the Brookdale homes.

Response

Caltrans shares the concern about affordable housing. In consultation with the Golden Gate Bridge, Highway and Transportation District, a plan to replace the Northwestern Pacific Railroad (NWPR) corridor has been conceptually developed. The support for a commuter rail service in the US 101 corridor in Marin and Sonoma Counties, including the completion of the draft final report of the *S.M.A.R.T. Commuter Rail Implementation Plan* and the rail funding in the Governor's Transportation Congestion Relief Plan, is growing. This support for rail service necessitates that Caltrans secure the replacement right of way expeditiously, prior to the construction of the southbound HOV lane in the Brookdale and Lincoln Avenue areas. The replacement of the rail right of way will include all necessary demolition of homes and properties acquired by Caltrans.

Comment 5

Contrary to the intent of the statements in the FEIS/R regarding community information meetings to solicit public comments and to provide project information, the citizens of San Rafael were not adequately notified and only by chance did we, the affected homeowners, become aware of the extensively developed plans, after the fact.

Response

Planning for the Marin 101 HOV Lane Gap Closure Project has been a systematic, interdisciplinary approach, including studying the potential project alternatives, evaluating the environmental issues, and timely public outreach. Input from agencies and the public has greatly influenced the process and influenced the selection of alternatives considered. There have been informational meetings on the project, mailings, a public hearing, and hundreds of comments were received on the Draft and Final EIS/R. In the summer/fall of 1999, Caltrans held an additional informational open house about the project and a public meeting on traffic noise issues.

Comment 6

The relocation of Irwin Creek to the east side of Brookdale Avenue, will not only destroy the existing riparian habitat and natural environment of the existing homes west of Brookdale Avenue, but will devalue those homes to which their owners have no recourse.

Response

Your comment is noted. Caltrans will work with affected residents, landscape architects, biologists, and regulatory agencies in finalizing any mitigation plan. The proposal to create an open channel for Irwin Creek along the east side of Brookdale Avenue is a conceptual plan and many details remain to be resolved prior to implementation.

Comment 7

Figure 21 in the FEIS/R is a subterfuge apparently intended to mislead concerned citizens. The parkway shown with a lawn, trees, a subtle indication of a single railroad track belies the fact that the proposed plan will be one deep ditch.

Response

Caltrans provides photo simulations to help the public and local and regulatory agency staff visualize aspects of the proposed project. The photo simulation of the east side of Brookdale Avenue with the Irwin creek open channel was prepared and is available for review at the Caltrans District Office, 111 Grand Avenue, Oakland. However, at this stage the Irwin Creek Daylight concept is conceptual and there are many details to resolve prior to committing to the proposal. Since the plan has not been finalized, it was decided to revert to the landscaped parkway photo simulation for figure 21.

Comment 8

There is little mention in the FEIS/R of the loss of affordable housing. In Marin there is a shortage of affordable housing and the project proposes to destroy 45 affordable homes for a transportation system that is not planned, with no funds available, no interest in obtaining funds, and has been rejected by popular vote.

Response

Caltrans shares the concern about affordable housing. In consultation with the Golden Gate Bridge, Highway and Transportation District, a plan to replace the Northwestern Pacific Railroad (NWPR) corridor has been conceptually developed. The support for a commuter rail service in the US 101 corridor in Marin and Sonoma Counties, including the completion of the draft final report of the *S.M.A.R.T. Commuter Rail Implementation Plan* and the rail funding in the Governor's Transportation Congestion Relief Plan, is growing. This support for rail service necessitates that Caltrans secure the replacement right of way expeditiously, prior to the construction of the southbound HOV lane in the Brookdale and Lincoln Avenue areas. The replacement of the rail right of way will include all necessary demolition of homes and properties acquired by Caltrans.

Comment 9

There is no mention in the FEIS/R of the cost of condemnation and destruction of those homes and businesses and the attendant costs of relocating and mitigating the taking of residences and businesses.

Response

Section 2.2, "Alternatives Considered," in Volume I of the FEIS/R indicates the estimated right of way costs for the entire Southbound/Reversible HOV Lane Gap Closure Alternative are \$22,000,000. This includes estimates for the cost of acquisition, utility relocation, relocation assistance, clearance/demolition, and title and escrow fees. The condemnation costs are part of the acquisition process and are included in the right of way estimate. Clearing and demolition costs are also part of this estimate.

Comment 10

Most certainly there is no redress for the pain and suffering and anguish from an unwanted, unjustified loss of affordable homes and businesses. And there is no accounting for the collateral ill effects that the neighboring homeowners will experience.

Response

Comment noted.

11 Patrick Murphy, Soundwall Noise Abatement Committee

By letter dated March, 2000, Patrick Murphy, Soundwall Noise Abatement Committee stated:

Attached to his letter were 25 pages of comments (approximately 95 individual comments) on the Final Environmental Impact Statement/Report, Volumes I and II. Patrick Murphy's 25 pages of comments focused on five main topics. In addition, there are 20 comments on other miscellaneous topics. This section responds to the five main topics first and then to the miscellaneous comments. The five main topics are stated below, followed by their responses. The miscellaneous comments and their responses follow.

Comment - Topic 1

Caltrans has not evaluated existing traffic noise impacts (reflected and/or multi-reflected) on hillside residences. Specifically:

- Federal-Aid Highway Program Manual 773 requirements have not been addressed.
- The impact of wind or other atmospheric conditions have not been determined.
- No scientific analysis of traffic noise in the hillsides has taken place.
- Lack of measurements in the hillsides is a violation of CEQA, NEPA, 23CFR Part 772 and Part 771.
- The Scope of the environmental document has not been properly established.
- The state of the art methodology used by Caltrans to measure noise is outdated.

Comment - Topic 2

Caltrans has not complied with NEPA and CEQA (in addition to other policies and referenced guidelines). Caltrans has not complied with the following guidelines:

- Title 23, Part 772 Sections 772.9, 772.11
- Title 23, Part 771.105, Part 771.113 and Part 771.125

Responses - Topic 1 and Topic 2

The California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA) and their implementing guidelines and regulations mandate the evaluation and documentation of environmental benefits and consequences of project activities and implementation of mitigation measures where practicable and feasible to minimize or avoid environmental impacts. The requirements for environmental documents under NEPA and CEQA also include subjects in other areas of environmental legislation and implementing laws and regulations. Included among these are laws and regulations dealing with traffic noise.

Under NEPA, impacts and measures to mitigate adverse impacts must be identified, including the identification of impacts for which no or only partial mitigation is possible. FHWA regulations constitute the Federal Noise Standard. Projects complying with this Standard are also in compliance with the requirements stemming from NEPA.

Under FHWA regulations (23 CFR 772), noise mitigation or abatement must be considered for Type I projects when the project results in a substantial noise increase or when the predicted noise levels approach or exceed the Noise Abatement Criteria (NAC). Noise abatement measures which are reasonable and feasible and that are likely to be incorporated in the project, as well as noise impacts for which no apparent solution is available, must be identified and incorporated into the project's plans and specifications.

Under CEQA, a substantial noise increase may result in a significant adverse environmental effect and, if so, must be mitigated or identified as a noise impact for which it is likely that no, or only partial abatement measures are available. Specific economic, social, environmental, legal, and technological conditions may make additional noise attenuation measures infeasible.

A Traffic Noise Impact Report was prepared by Caltrans in June 1997 to evaluate the noise impact of the Highway 101 widening project in San Rafael. This report was based on FHWA

noise regulations (23 CFR 772) and Caltrans policy in assessing the noise impacts and recommending noise abatement measures to reduce impacts to acceptable levels. All CEQA and NEPA requirements regarding the assessment of noise impacts were followed.

After a detailed study with sufficient attention to the scope of the project, noise barriers were recommended. These barriers met the Federal Highway Administration (FHWA) and Caltrans noise abatement criteria. The reasonableness and feasibility, including cost effectiveness of each noise barrier will be further evaluated as more detailed design information becomes available. The exact dimensions, locations and aesthetics of noise barriers will be determined during the final design phase.

This study was done under an approved state-of-the-art methodology, which is still acceptable, and which does not take into account reflective noise for the purposes of impact identification only. As demonstrated in the FEIS, with reference to various reflective noise studies, reflective noise does not, in itself, constitute a need for noise abatement.

On the issue of reflective noise, Caltrans has done two very detailed studies, one along Route 405 in the Los Angeles community of Brentwood, and another along Highway 99 in south Sacramento. These studies dealt with the acoustical performance of parallel noise barriers and the possibility of noise reflection problems. These studies were performed under carefully documented “real world” conditions and showed no noticeable reflection problems. However, the studies did clearly demonstrate the profound effect of meteorological conditions on traffic noise levels. All noise measurements have been conducted in neutral meteorological conditions such as dry pavement and no wind. The state-of-the-art noise models require that all noise measurements be taken in neutral meteorological conditions. The reason for this is to be able to duplicate the noise measurements and have a similar noise standard applied to all regions of California and United States.

There have been other studies of reflective noise. The U.S. Department of Transportation, Volpe National Transportation Systems Center, completed two parallel barrier studies during the period of October 1986 through April 1994. The studies were funded by the highway agencies of seventeen states, including California. The first study examined the performance of two parallel experimental highway noise barriers constructed on opposite sides of a two-lane asphalt service road at Dulles International Airport near Washington, D.C. The second study was done along Interstate 495 in Montgomery County, Maryland. It measured parallel barrier degradation under more realistic yet still severe conditions of free-flowing traffic but with a width-to-height ratio of 9:1. These studies also showed no noticeable reflection problems. In fact, there has been no data of noticeable, reflective noise presented to Caltrans. All the noise studies conducted by Caltrans and others have not provided any conclusive results of a noticeable noise increase due to reflections.

Together with the Caltrans studies, it is our conclusion that parallel barrier sites with a width-to-height ratio of 10 or more would have a degradation of less than 3 dBA, an imperceptible noise increase over a single barrier. All these reflective noise studies clearly indicate a degradation of less than 3 dBA at parallel barrier sites with a width-to-height ratio of 10 or more.

Furthermore, it is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

However, Caltrans and the Marin Congestion Management Agency (Marin CMA) have committed to further evaluate the noise issue in San Rafael. This evaluation will refine the design of the newly proposed noise barriers on US 101 and address possible reflected noise at homes on the hillsides above and behind the noise barriers.

Caltrans and the Marin CMA are still working on the details of the scope of work. An independent consultant has been selected. They have been asked to measure the existing noise levels on the hillsides, collect data on traffic and meteorology, calibrate the noise model, predict future noise levels at homes on the hillsides with and without the proposed new noise barriers. The noise consultant will be asked to explore every possibility for noise abatement including, but not limited to: selection of sound absorbing materials; new noise barriers, if warranted; modified noise barrier designs; as well as extensive landscaping where future predicted noise levels for outside residential use will approach or exceed 67 dBA, Leq(h) due to traffic noise from US 101. Any abatement measure proposed by the consultant as a result of the new noise investigation will have to be reasonable, feasible, cost-effective, and it must have the final approval of the Marin CMA, the Metropolitan Transportation Commission (MTC) and Caltrans. Mr. Patrick Murphy and Mr. Bob Cooper along with other representatives from the public have attended all the meetings with the new noise consultant. Caltrans and Marin CMA have worked very closely with these representatives and have obtained their concurrence regarding the scope of the new noise evaluation

Comment - Topic 3

Caltrans has had evidence of an existing hillside traffic noise problem for over 10 years and refused to recognize or acknowledge it.

Response - Topic 3

Section 3.14.3 of the FEIS/R discusses the reflective noise issue in detail. There have been numerous studies on reflective traffic noise. The U.S. Department of Transportation, Volpe National Transportation Systems Center, completed two parallel barrier studies during the period of October 1986 through April 1994. These studies have shown no reflection problems. In fact, there has been no data indicating any noticeable, reflective noise problems presented to Caltrans.

Together with the Caltrans studies, it is our conclusion that parallel barrier sites with a width-to-height ratio of 10 or more would have a degradation of less than 3 dBA, an imperceptible noise increase over a single barrier. Caltrans has never been presented with any conclusive results of noise levels in the hillsides approaching or exceeding the 67 dBA Noise Abatement Criteria. The noise measurements taken by Caltrans in the hillsides have yielded noise levels below the established Noise Abatement Criteria.

Furthermore, it is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

Caltrans and the Marin CMA have also committed to study the noise issue in the hillsides in more detail. Planning for the upcoming noise evaluation to be conducted by an independent consultant is underway. Caltrans, along with Marin citizens Patrick Murphy, Bob Cooper, and Simon Palmer, and the Marin CMA are working to define the details of the scope of the this noise investigation.

Comment - Topic 4

This reflective traffic noise issue is site specific to this locale. Other studies of reflective noise and related issues in other locales do not matter. In addition:

- Real world conditions should be used when taking noise measurements.
- Existing parallel noise barriers are at a distance less than 10:1 width-to-height ratio.

Response - Topic 4

Section 3.14.3 of the FEIS/R discusses reflective noise in detail. Please refer to the document for a through disclosure. A brief summary of the FEIS/R discussion is presented below.

The two studies conducted by Caltrans in the Los Angeles community of Brentwood and along Highway 99 in south Sacramento dealt with the acoustical performance of parallel noise barriers and the possibility of noise reflection problems. These studies were performed under carefully

documented “real world” conditions and showed no reflection problems. However, the studies did clearly demonstrate the profound effect of meteorological conditions on traffic noise levels. All noise measurements have been conducted in neutral meteorological conditions such as dry pavement and no wind. The state-of-the-art noise models require that all noise measurements be taken in neutral meteorological conditions. The reason for this is to be able to duplicate the noise measurements and have a similar noise standard applied to all regions of California and United States.

These studies showed no conclusive results of reflection problems. In fact, there has been no data of noticeable, reflective noise presented to Caltrans. It is our conclusion that parallel barrier sites with a width-to-height ratio of 10 or more would have a degradation of less than 3 dBA, an imperceptible noise increase over a single barrier.

Furthermore, it is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

The existing noise barriers do have a distance less than 10:1 width-to-height ratio. However, the distance between the walls will be increased as part of the widening project to the optimum 10:1 ratio. None of the noise barriers recommended for this project has the width-to-height ratio (W/H) less than 10:1, with the exception of a short segment of Barrier S633 at Linden Avenue Undercrossing. The width-to-height ratio at this location would be 9.5:1. Since this is a very short section and the W/H ratio is close to the acceptable ratio, no special barrier treatment is required at this location.

Comment - Topic 5

Caltrans has not endorsed the use of absorptive surfaces in construction or retrofitting of noise barriers.

Response - Topic 5

Caltrans has indeed experimented with absorptive surfaces in District 4. A section of the retaining wall in the median along Route 580 near Park Boulevard in the City of Oakland has been treated with absorptive material. According to the noise evaluation by the consultants, the absorptive material has only provided 1-2 dBA of noise reduction.

Caltrans and the Marin Congestion Management Agency (Marin CMA) have committed to further evaluate the noise issue in San Rafael. This evaluation will refine the design of the newly proposed noise barriers on US 101 and address possible reflected noise at homes on the hillsides above and behind the noise barriers.

The noise consultant will be asked to explore every possibility for noise abatement including, but not limited to: selection of sound absorbing materials; new noise barriers, if warranted; modified noise barrier designs; as well as extensive landscaping.

Comment 6

All of the readings in Table 10 are spot readings, as designated by the times noted. “Spot readings” can not be conclusive in evaluation of the impacts of the various noise levels prevalent during a 24-hour period.

Response

Caltrans noise measurement methodology is consistent with Federal guidelines and procedures. The spot readings were taken at the worst hour of the day and they did take into account the impacts of various noise levels. Twenty four-hour measurements are not necessary.

Comment 7

The FEIS/R is incorrect in that Lincoln Ave. in San Rafael is not marked or considered a Class II Bike Lane. An alternative route on the eastern side of Highway 101, such as Grand Avenue is utilized as a safer and saner bike route to connect north and south through San Rafael.

Response

Comment noted.

Comment 8

Section 772.13 Federal Participation subsection (d) allows noise abatement measures other than those listed in Section 772.13© may be proposed for Types I and II projects by the Regional Federal Highway Administration on a case by case basis when the conditions of Section 772.13(a) have been met.

Response

Caltrans and Marin CMA will explore every possibility for noise abatement including, but not limited to: selection of sound absorbing materials; new noise barriers, if warranted; modified noise barrier designs; as well as extensive landscaping.

Comment 9

Caltrans did not provide opportunities for the public to be involved in the identification of social, economic, and environmental impacts.

Response

Caltrans did indeed make every effort to include in the environmental document the concerns of the public in the identification of social, economic, and environmental impacts.

Comment 10

Paragraph (8) Federal Participation states cases where severe traffic noise impacts exist or are expected and the typical abatement measures are physically infeasible or economically unreasonable, than noise abatement measures may be proposed for and approved by the Regional Federal Highway Administrator on a case-by-case basis.

Response

Every effort will be made by Caltrans and Marin CMA to ensure that proper abatement measures are considered.

Comment 11

Caltrans Reasonableness Criteria for noise abatement should not always be rigidly applied.

Response

The Noise Abatement Reasonableness Criteria as stated in section 2.8 of the Traffic Noise Analysis Protocol has been carefully selected by Caltrans and the Federal Highway Administration. This Protocol is the accepted noise standard in the State of California. To ensure State and Federal funding of noise abatement measures, adherence to this Protocol is essential.

Comment 12

Measurement of traffic noise for a one-hour interval, Leq(h), is far from conclusive in the constantly changing environment and the fluctuation of human activity and degrees of traffic noise impact. Traffic noise impacts in real world conditions has to be taken into consideration.

Response

Caltrans noise measurement methodology is consistent with Federal guidelines and procedures. The one-hour interval, Leq(h) is taken at the worst hour of the day to represent the worst case, "real world" condition.

Comment 13

Leq(h) is not a systematic and interdisciplinary approach to the identification of a traffic noise impact. How can an increment of time be well correlated to people's reaction to noise.

Response

Caltrans approach to noise measurement complies with all State and Federal guidelines and procedures. The noise methodology used in this project did capture worst case conditions and has been consistent with all other noise evaluations in the State of California.

Comment 14

Site No. 4(a) and 4A were measured for noise impact and Table 7 lists the results 60 and 63 dBA respectively. These are far below the NAC of 67 dBA required for consideration of mitigation yet these sites are currently being considered for mitigation. A noise reading at 21 La Vista Way, done August 1997 had a cumulative average of 63.7 dBA and the area in which this address is located is not being considered for mitigation.

Response

The house at 21 La Vista Way is included in the upcoming noise evaluation and will be thoroughly investigated for possible noise abatement.

Comment 15

Caltrans policy is to abate noise impacts by reducing projected noise levels by 5 dBA, yet a project must cause a 12 dBA increase in order to consider abatement of traffic noise. This criteria is exclusive and not equitable in approach, and makes NO sense.

Response

Caltrans considers noise abatement when the predicted future noise levels approach or exceed 67 dBA. Caltrans is then required to abate noise levels by 5 dBA if the abatement is found to be reasonable and feasible. Whether a project will cause a 12 dBA or not, noise abatement is considered if noise levels approach or exceed 67 dBA.

Comment 16

Table 9 (Common Indoor and Outdoor Noise Levels) is neither factual nor based on true scientific measurements. The comparison of a “commercial area” to “normal speech at 3 feet” is totally misleading and not true. The decibel measurement of normal speech at 3 feet is well below 60 to 70 dBA.

Response

Table 9 is meant to be a reference only. It does correctly state common indoor and outdoor noise levels.

Comment 17

If Caltrans designs to avoid noise impacts, as claimed in this Final Environmental Impact Statement/Report, why is the proposed barrier at Linden Lane only scheduled to be at a ratio of 9.5:1.

Response

It is Caltrans policy to avoid noise problems through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1.

Barrier S633 at Linden Avenue Undercrossing has a width-to-height ratio of 9.5:1. Since this is a very short section and the W/H ratio is close to the acceptable ratio, no special barrier treatment is required at this location.

Comment 18

It is our perspective that Caltrans has discussed the reflected noise issue in the FEIS/R and has summarily dismissed the need for evaluation of the traffic noise impact in San Rafael.

Response

Section 3.14.3 of the FEIS/R discusses reflective noise issue in detail. There have been numerous studies of reflective noise. The U.S. Department of Transportation, Volpe National Transportation Systems Center, completed two parallel barrier studies during the period of October 1986 through April 1994. These studies have shown no reflection problems. In fact, there has been no data indicating any noticeable, reflective noise problems presented to Caltrans.

Together with the Caltrans studies, it is our conclusion that parallel barrier sites with a width-to-height ratio of 10 or more would have a degradation of less than 3 dBA, an imperceptible noise increase over a single barrier.

Furthermore, it is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

Comment 19

Table 12 (Area's Highest Recorded Annual CO Concentrations) does not reflect the current levels of existing air pollution. The levels do not adequately address the influx of larger more polluting SUVs since calculations were done.

Response

Caltrans did analyze the worst case scenario with respect to air pollution. With the advent of the new 'Transportation Project-level Carbon Monoxide Protocol, Caltrans prepared a revised Air Quality Impact Report. This report indicated that the project will not affect air quality and there will be no significant negative impacts and no mitigation is required.

Comment 20

By the time the project has progressed to Phase Two (Cal Park Hill to North San Pedro Rd.), the air pollution levels shown in Table 12 (Area's Highest Recorded Annual CO Concentrations) will have increased proportionately to the number and type of vehicles using the highway.

Response

The Air Quality Impact Report was based on worst case scenario and it did take into account future levels.

Comment 21

In violation of CEQA, the future cumulative effect of reflected and multi-reflected traffic noise has NOT been considered in relation to past and present (cumulative) impacts.

Response

Cumulative impacts were indeed taken into consideration.

Comment 22

Caltrans conducted two 24-hour noise studies at 21 La Vista Way, and one of the studies indicated a peak noise level of 63 dBA. Since this is below the 67 dBA, no further studies were conducted. The other 24 hour noise study was not released to the public as it happen to be a rainy day. Why does Caltrans not release the second noise study?

Response

Caltrans conducts noise measurements in adherence with State and Federal procedures and guidelines. Noise measurements taken during inclement weather such as rainy days are not valid.

Comment 23

Caltrans conducted two 24-hour noise studies at my home on August 19-20 and 20-21, 1997. The comment that a peak noise level of 63 dBA was recorded is false and misleading. The cumulative average of the 24 hour test was 63.7 dBA. The peak level recorded was 66 dBA along with several readings of 65 dBA.

Response

The peak noise level at 21 La Vista Way was 63.7 dBA, Leq(h).

Comment 24

In the fall of 1997, a grassroots movement, the Soundwall Noise Abatement Committee, was initiated in San Rafael. Cards to area representatives were mailed by residents along with a letter to Caltrans. Only one of 283 letters was included and there was no mention of the other 282 in the document.

Response

Caltrans has received hundreds of letters, phone calls, faxes and emails over the past ten years on the Marin 101 HOV Lane Gap Closure Project. These observations came from Marin residents, citizen groups, local and state agencies, legislators and other interested members of the community. Caltrans has carefully reviewed and considered all of these comments and provided a reply if a direct response was requested or was appropriate. Most of the remarks and comments received did not require a direct response.

There were many letters and comments received (including the 283 mentioned in the Comment 24, above) on the issue of reflective noise and alternative noise barrier materials and design. These led directly to the listing of this issue as a controversial issue in the Summary Section of the FEIS/R. In the responses to comments in Volume II of the Final Environmental Impact Statement/Report, similar and/or identical comments were grouped together, paraphrased, and answered with one response. Only one of the 283 identical letters, the letter from John Featherstone, was included in Volume II of the FEIS/R.

The concern expressed by the Marin community in these 283 letters and in other comments and public meetings has resulted in the Marin Congestion Management Agency's support of an additional noise investigation currently in the planning stage.

12 Dennis Petrotta and Mary Lindsay, Greenbrae Property Owners Association

By letter dated March 14, 2000, Dennis Petrotta and Mary Lindsay, Greenbrae Property Owners Association stated:

Comment 1

Barrier S493 does not address residences on Via La Cumbre which immediately back onto the R/W and which are elevated above the freeway both north and south of the limits of S493. These residences on Via La Cumbre are similarly situated as those on Corte Placida considering their elevations and usable backyards. The EIS/R does not address these impacted residences (those on Via La Cumbre) within 100 meters (330 feet) of the freeway, a distance Caltrans agrees is within the range of effectiveness for noise barriers. We propose that the S493 be extended to mitigate noise both north and south of its current limits. Its southerly limit should approach the northern terminus of the deleted S475. We further propose that its height be increased by utilizing reasonably available engineering to maximize its acoustic impact, especially in areas within the Caltrans R/W where there is direct visual line of sight between the residences and the R/W.

Response

Thank you for your comments and concerns. Noise Barrier S493 is under consideration for a possible extension to provide noise abatement to the residences on Via La Cumbre. This extension will also be evaluated on its reasonableness and feasibility, including cost effectiveness.

Comment 2

The FEIS/R states evaluation of reflective noise and the final design of the noise barrier locations and types will occur during the final design phases at the request of the Marin CMA. It does not identify the neighborhoods to be evaluated. The next paragraph describes further evaluation of the reflective noise issue in San Rafael. This appears to exclude Greenbrae from further noise analysis, though we have requested inclusion in such a study in order to address noise mitigation for impacted residences on the west side of Via La Cumbre. Most of these residences have direct line of sight of the freeway and will be impacted by the project. We request that the Greenbrae community be included in the upcoming noise evaluation.

Response

The final evaluation of reflective noise and the final design of the noise barrier locations and types will occur during the final design phases. All neighborhoods within the project limits, including Greenbrae, are included in this evaluation.

13 David Schonbrunn, Marin Advocates for Transit

By letter dated March 18, 2000, David Schonbrunn, Marin Advocates for Transit stated:

Comment 1

Since the Southbound/Reversible Alternative was considered and withdrawn in the DEIS, and introduced only later in the FEIS, this comment period is the first formal opportunity to comment on the alternative. Marin Advocates for Transit are pleased that the Southbound/Reversible HOV Lane Alternative has become the preferred alternative. We appreciate the effort that went into completing work on the environmental document.

Response

Comment noted and appreciated. Thank you for taking the time and effort to review the FEIS/R and for contributing to the public process by sending your comments.

Comment 2

The EIS incorrectly equates the Ultimate HOV Lane Gap Closure Alternative ("Ultimate Alternative") with an ultimate [please note the lower case "u"] project. When the Southbound/Reversible HOV Lane Alternative was developed, the Ultimate Alternative became unnecessary and obsolete.

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. However, the Ultimate HOV Lane Gap Closure Alternative satisfies the Purpose and Need of the project and includes other features that are not a part of the Southbound/Reversible HOV Lane Gap Closure Alternative. It provides an extra non-peak lane that will still serve to relieve heavy traffic demands and would eliminate the maintenance costs of the Reversible operation. The Ultimate remains a programmable and viable solution to the project need.

Comment 3

Had there been a willingness on the part of Caltrans to share information with the public during the long period, the need we detail herein for FEIS changes and a SEIS could have been avoided.

Response

Planning for the Marin 101 HOV Lane Gap Closure Project has been a systematic, interdisciplinary approach, including studying the potential project alternatives, evaluating the environmental issues, and timely public outreach. Input from agencies and the public has greatly influenced the process and influenced the selection of alternatives considered. There have been informational meetings on the project, mailings, a public hearing, and hundreds of comments were received on the Draft and Final EIS/R. In the summer/fall of 1999, between the DEIS and the FEIS, Caltrans held an additional informational open house about the project and a public meeting on traffic noise issues, both in San Rafael.

Comment 4

The Ultimate Alternative is not an actual project alternative. Because it is not funded, it is not being considered for implementation at this time. Because it could not possibly be selected as the preferred alternative, it is, by definition, not an alternative.

Response

Many highway projects have phases or stages that are not funded. The Ultimate satisfies the Purpose and Need of the project and includes other features that are not a part of the Southbound/Reversible HOV Lane Gap Closure Alternative. It provides an extra non-peak lane that will still serve to relieve heavy traffic demands and would eliminate the maintenance costs of the Reversible operation. The Ultimate remains a programmable and viable solution to the project need.

Comment 5

There is no justification in the FEIS of any need to proceed with the Ultimate Alternative, once the Southbound/Reversible Alternative is constructed. Twenty-five percent of the cost of right of way proposed for the Southbound/Reversible project involves acquiring right-of-way for the Ultimate Alternative and not necessary for the Southbound/Reversible alternative. This acquisition drives up the cost of the project beyond the funds currently available, thus preventing the immediate delivery of the second phase of the project, the reversible lane.

Response

See Response to Comment 7, below.

Comment 6

The FEIS has no analysis of the construction impacts of the Ultimate Alternative, including replacing the northbound San Rafael Viaduct, on downtown San Rafael.

Response

Replacement of the northbound viaduct is inevitable and will cause short-term impacts to downtown San Rafael. Traffic will detour on the newer western structure. Reconstruction of the east viaduct would be accomplished by phasing and off-peak construction periods and also use methods to minimize temporary construction impacts, see Volume I, Section 4.17, "Temporary Effects During Construction." Future implementation of features of the Ultimate HOV Lane Gap Closure Alternative would require additional environmental documentation.

Comment 7

No off-peak congestion problem has been demonstrated to currently exist and none is projected to occur in the future. No credible North Bay land use scenarios exist that would support predicting a change to a substantial reverse commute pattern. Therefore:

- The Southbound/Reversible Alternative meets the Purpose and Need for the Marin 101 HOV Lane Gap Closure Project.
- The Northbound HOV lane provided by the Ultimate Alternative is unnecessary.
- The Southbound/Reversible Alternative is the ultimate project.
- No reason exists to purchase right-of-way beyond what is needed for the Southbound/Reversible Alternative.
- The now obsolete sentence "As funds become available, the completion of the Ultimate HOV Lane Gap Closure Alternative still remains a goal of transportation planning organizations" should be deleted from Vol. I, pg. 10, of the FEIS/R.

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. The Ultimate HOV Lane Gap Closure Alternative was not identified as the Preferred Alternative in the Final Environmental Impact Statement/Report and is not the approved alternative of this Record of Decision. A supplemental or a new environmental compliance process will be required prior to construction of the Ultimate HOV Lane Gap Closure Alternative.

Caltrans will acquire rights of way from property owners on Brookdale and Lincoln Avenues for the relocation of the rail corridor to the west. The NWPR corridor is a major public transportation facility and must be relocated to a location that will provide flexibility for further highway and/or rail improvements and ensure that the rail facility will not have to be relocated again.

Comment 8

Marin Advocates for Transit is not requesting that the Record of Decision for this needed project be delayed. We would like to see the project proceed expeditiously. We request that the project alternative descriptions be modified to include only the right-of-way acquisition needed for each alternative. This would require minor changes to the text and a recalculation of right-of-way needs and costs. This information should be readily available in the project office.

Response

See Response to Comment 7, above.

The Southbound/Reversible HOV Lane Gap Closure Alternative requires the relocation of Francisco Boulevard West and the acquisition of commercial property affecting businesses and parking. Adequate right of way for an interim clear recovery zone will ensure Caltrans will not need to repeat the relocation of West Francisco Boulevard and will not impact the businesses a second time.

Comment 9

For purposes of determining whether to proceed with acquiring all the properties identified in the FEIS, we believe a Supplemental EIS (SEIS) must evaluate the costs and benefits of the Ultimate Alternative, compared to a base case of a completed Southbound/Reversible Alternative.

Response

All right of way acquisition and associated costs included in the FEIS/R for the Southbound/Reversible HOV Lane Gap Closure Alternative is required. The FEIS/R compares the features, advantages, costs and other impacts of the No-Build Alternative and of each of the Build Alternatives. Caltrans will acquire rights of way from property owners on Brookdale and Lincoln Avenues for the relocation of the rail corridor to the west. The NWPR corridor is a major public transportation facility and must be relocated to a location that will provide flexibility for further highway and/or rail improvements and ensure that the rail facility will not have to be relocated again.

Comment 10

We would be supportive if Caltrans were to come to an agreement with GGBHTD to acquire a portion of the NWP right-of-way in the Brookdale area, if it enabled the preservation of the homes there while preserving a functional single rail track, with clearances consistent with CPUC General Order 26-0, and grade not increased beyond the maximum viable for passenger and/or freight service. The presence of the single bore tunnel adjacent to this rail segment makes maintaining the two track potential of the right-of-way less important there than it would otherwise be.

Response

The FEIS/R states the Southbound/Reversible HOV Lane Gap Closure Alternative will relocate the "full width of (the) rail corridor." It is appropriate that Caltrans provide sufficient width to avoid limiting the operational flexibility of any future passenger commuter rail service planned for this right-of-way. Adequate right-of-way for ballast, drainage, and potential electrification must also be provided. HOV Lane Gap Closure Project should not restrict the operational flexibility of this potential transit corridor.

Comment 11

An arrangement with GGBHTO for the soundwall proposed near Brookdale Avenue to be constructed on the west side of the railroad right-of-way, thereby eliminating the need to build another soundwall later would also help reduce reflected noise.

Response

Comment noted. Details of the specific design features of the noise barriers are part of the final project design phase and have not yet occurred. For a variety of reasons, freeway noise barriers are typically located within the state right of way. There are maintenance considerations that need to be considered as well.

Comment 12

Bridge and viaduct railings that are perforated, to preserve views for motorists. The Corte Madera Creek bridge has railings that permit the viewing of lovely vistas.

Response

Comment noted.

Comment 13

Avoidance of widening the San Rafael Southbound Viaduct. Note that the FEIS has no analysis of the visual impact of widening the San Rafael Southbound viaduct.

Response

The *Visual Resources Technical Report*, referenced in Volume I of the FEIS/R evaluated the general widening of the San Rafael Viaduct structure as a feature of the Ultimate HOV Lane Gap Closure Alternative. It concluded that the widening would increase shade and limit potential planting options beneath the viaduct and that any loss of natural light could be compensated for by the addition of artificial lights if necessary. The report concluded the effects of the widening of the viaduct structure would be minor.

Comment 14

The following errors in the text should be corrected:

- Figure 3 should have solid, rather than dashed, red lines for the moveable barrier.
- Table 18 should not have each column labeled "HOV LANE."

Response

Comment noted

14 Debbie Hubsmith, Marin County Bicycle Coalition

By letter dated March 20, 2000, Debbie Hubsmith, Marin County Bicycle Coalition, stated:

Comment 1

The Marin 101 HOV Lane Gap Closure Project, alone, will not solve traffic congestion problems.

Response

Your comment is noted. There is no single solution to the traffic congestion problem. The purpose of the Marin 101 HOV Lane Gap Closure Project is to relieve recurring peak period traffic on US 101 by completing the HOV lane system between the Richardson Bay Bridge and Route 37 by encouraging multi-occupancy vehicle use.

Comment 2

Technical errors and inaccuracies are present in Figure 9, "Map of Existing Bike Lanes," in the FEIS/R.

Response

Your observation is correct. Most of the bike routes shown on Figure 9, "Existing Bike Lanes" in Volume I of the FEIS/R are proposed. Under Section 3.12.5, "Non-Motorized Transit" in Volume I, the FEIS/R acknowledges that "existing and proposed trails were included in the traffic study area." Caltrans was concerned that labeling the accompanying figure as "proposed and existing" trails would misrepresent Caltrans as proposing the construction of these bike lanes as part of the 101 HOV Gap Closure Project. The bike trail improvements throughout San Rafael are outside of scope of the Marin 101 HOV Lane Gap Closure Project. Caltrans apologizes for confusion regarding Figure 9.

Comment 3

The Marin County Bicycle Coalition recommends:

- bike lanes as they are depicted in Figure 9 be funded by Caltrans as part of the HOV Gap Closure project
- changes to certain existing bike lanes that are in the City of San Rafael General Plan.
- Caltrans assistance in building a bicycle route between the Larkspur Landing Ferry Terminal to downtown San Rafael via Cal Park Hill.
- the California State Governor fund a separate bicycle path out of this year's State surplus
- Caltrans apply for State Enhancement Program grant to fund a separate bicycle/pedestrian path.
- one-way direct access on the 12-foot northbound shoulder of Highway 101 from Larkspur to Bellam.

Response

Comment noted. Unfortunately, improving or replacing bicycle or other facilities that are not effected by the construction of the Southbound/Reversible HOV Lane Gap Closure Project is not possible. Providing a bicycle lane (s) on or adjacent to US 101 was not a feature of this project. There is no funding committed to bicycle improvements beyond relocating or repairing facilities affected by the project.

Comment 4

Requests that Caltrans keep the Marin County Bicycle Coalition informed about temporary closures of bicycle paths throughout the construction of the project.

Response

The Marin County Department of Parks, Open Space & Cultural Services is the local agency responsible for the countywide bicycle and pedestrian trail system. This includes bicycle and pedestrian facilities within Caltrans right of way from the Greenbrae Pedestrian Overcrossing to Sir Francis Drake Boulevard. Caltrans is coordinating with the Marin County Department of Parks, Open Space & Cultural Services on bicycle and pedestrian temporary detours and providing advance notification and clear signage.

15 Carol d'Alessio and Sandy Goldman, Friends of Corte Madera Watershed

By letter dated March 18, 2000, Carol d'Alessio and Sandy Goldman, Friends of Corte Madera Watershed stated:

Comment 1

The Friends of Corte Madera Watershed are concerned about the lack of mitigation for the project's adverse impacts on Corte Madera Creek. The loss of 65 to 90 square feet of Corte Madera Creek due to pilings, the shading of 0.23 acres; and the additional temporary loss due to temporary pilings and trestle shading warrant mitigation.

Response

Caltrans and Federal Highway Administration (FHWA) have consulted with the U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Fish and Wildlife Service, National Marine Fisheries Service, San Francisco Bay Conservation and Development Commission and Department of Fish and Game over the proposed activities in and adjacent to Corte Madera Creek.

The U.S. Coast Guard will assume jurisdiction over the bridge widening activities at Corte Madera Creek under Section 9 of the Rivers and Harbors Act, see United States Coast Guard Letter in Appendix C of the FEIS/R. As discussed in the *FEIS/R*, the impact of 20 piles (approximately 64 square feet or 0.0014 acre) is a minimal effect and Caltrans and FHWA do not propose to provide mitigation. Caltrans will cooperate with jurisdictional agencies to address all permit requirements, including appropriate mitigation if subsequently required, for activities at Corte Madera Creek.

The tidal wetlands and the adjacent isolated wetlands at this site will be fenced as an environmentally sensitive area (ESA). There will be no impact on these wetlands.

16 Suzanne Suskind, Town of Corte Madera

By letter dated March 20, 2000, Suzanne Suskind, Town of Corte Madera stated:

Comment 1

The Town is concerned that this project will have adverse impacts on traffic on Corte Madera streets, both during construction and after. Please ensure that any adverse impacts are minimized to the greatest extent possible and satisfactorily mitigated where not eliminated.

Response

Thank you for your interest in this project. The Marin 101 HOV Lane Gap Closure Project impacts to local access and circulation patterns as a result of the proposed build alternatives are minor. Temporary lane closures, detours and other construction-related effects may occur during project construction. Construction staging, Caltrans standard specified practices, and local agency policies will minimize these impacts.

Comment 2

The Town is concerned that this project has the potential for adverse impacts in Corte Madera relating to noise, both with regard to the increased traffic on Marin 101 and the installation of one or more noise barriers near Corte Madera. Please ensure that adverse impacts are appropriately mitigated as part of the project.

Response

Comment noted.

Comment 3

The Town is concerned that this project will add to the existing drainage problems on Marin 101 near the Lucky Drive on and off-ramps. Please ensure that these drainage problems are corrected and that the correction does not adversely impact local drainage systems and local properties.

Response

The *Floodplain and Location Hydraulic Study*, referenced in the Volume I of the *FEIS/R* and available for review at the Caltrans District 4 Office, 111 Grand Avenue, Oakland, describes the drainage improvements in the US 101 corridor associated with the project. This study outlines which structures would need to be relocated, realigned, replaced or improved to meet any additional runoff attributable to the proposed project. The *Floodplain and Location Hydraulic Study* concluded that additional runoff generated by the proposed project is negligible.

In addition:

- The project will not raise or lower the existing "as built" profile of the highway within the base floodplain area,
- The project specifies improvements, including relocation of drainage inlets, extension of transverse culverts, and relocation of longitudinal culverts, to be made to the existing drainage system to accommodate the changes
- The *FEIS/R* concluded that additional runoff generated by the project would be minor.

The Southbound/Reversible HOV Lane Gap Closure Project will not result in an increase in the potential for flooding, flood-related property loss or hazard to life.

Comment 4

The Town is concerned that the bicycle and pedestrian path on the west side of Marin 101 near Corte Madera Creek and Lucky Drive will be adversely impacted by the project. Please ensure that adverse impacts are mitigated as part of the project.

Response

As described in Section 4.17, "Temporary Effects During Construction," in Volume I of the *FEIS/R*, construction work along the southbound Sir Francis Drake on-ramp and Greenbrae Pedestrian Overcrossing will result in a temporary closure of the bicycle and pedestrian path on the southbound on-ramp and the Greenbrae Pedestrian Overcrossing. Alternative bicycle and pedestrian routes over Corte Madera Creek are available on the east side of the US 101 bridge

and to the west of the project at Bon Air Road. Temporary rerouting of bicycle and pedestrian traffic on the Greenbrae Pedestrian Overcrossing will occur late in the project related to the installation of the moveable barrier. Alternate routes between the east and west sides of US 101 are available both north and south of the Greenbrae Pedestrian Overcrossing.

In addition to providing alternative route and clear signage, Caltrans is considering doing some of the construction work at night to minimize impacts to the vehicle users during day and this would also benefit these path users. During the final design phase, Caltrans will closely work with the Marin County, Department of Parks, Open Space & Cultural Services for selection of proper alternative routes and signage for the benefit and convenience of bicyclists and pedestrians.

Comment 5

The Town is concerned that the project's proposed noise barrier located on the west side of Marin 101 near the Lucky Drive exit may have adverse visual impact and economic impacts to those commercial properties located immediately contiguous to the noise barrier. Please ensure that any adverse impacts are eliminated or satisfactorily mitigated.

Response

Comment noted.

17 Robert Powell

By letter dated March 17, 2000, Robert Powell stated:

Comment 1

My major concern is relocation of Irwin Creek from its current bed across to the east side of Brookdale Avenue as a mitigation effort. I am very concerned that I will lose property value, as well as the current flora that depends upon Irwin Creek to survive. Will there be any compensation for habitat loss due to water table change? Will I be reimbursed for irrigation to keep present flora alive? I propose to leave the Irwin Creek in its current bed.

Response

Thank you for your comments. Caltrans will work with affected residents, landscape architects, biologists, and regulatory agencies in finalizing any mitigation plan. The proposal to create an open channel for Irwin Creek along the east side of Brookdale Avenue is a conceptual plan and many details remain to be resolved prior to implementation.

Comment 2

All of the other West Brookdale residents I have contacted do not feel relocation/mitigation of Irwin Creek is worth the risk of flooding. There are no guarantees the diverted creek will not flood onto our property. I propose to leave the Irwin Creek in its current bed.

Response

Your comment is noted. A relocated channel would be designed to safely accommodate anticipated winter stream flows. The proposal to create an open channel for Irwin Creek along the east side of Brookdale Avenue is a conceptual plan and many details remain to be resolved prior to implementation.

Comment 3

How will access to my home on the west side of Brookdale Avenue be affected?

Response

The Marin 101 HOV Lane Gap Closure Project impacts to local access and circulation patterns are minor. No existing through streets are permanently closed by the project and existing access and circulation are generally improved.

Temporary lane closures, detours and other construction-related effects may occur during project construction. Construction activities on Brookdale Avenue and on adjacent streets may temporarily cause congestion and delays. Other than construction-related traffic delays, you will have access to your home.

Comment 4

How will asbestos be contained during demolition of east side homes? I have allergies and fear the dust and pollen will disable me. I work night shifts occasionally. How will I be able to sleep during the day with the proposed earth moving & demolition?

Response

The buildings will be tested for asbestos prior to demolition and any asbestos will be removed and disposed of prior to building demolition activities. All work will be completed in accordance with all applicable National Emission Standards for Hazardous Air Pollutants, Resource Conservation and Recovery Act, and federal and State of California Occupational Safety and Health Administration regulations as well as other applicable sections of the California Code of Regulations and pertinent local ordinances.

Section 4.17, "Temporary Construction Effects," in Volume I of the FEIS/R describes wind-blown dust and particulate matter is a contaminant of construction-generated air pollution. Sufficient watering activities will be required to accompany dust-generating construction activities. Caltrans Standard Specifications and special provisions include these provisions, and all applicable (e.g., AQMD) air quality control rules also apply.

Noise is a natural component of major construction activities. Noise impacts will be relatively temporary due to the short duration of the work on Brookdale Avenue. Contractors will be required to comply with local noise ordinances. Caltrans also includes noise control requirements in the project special provisions.

Comment 5

I suggest leaving the east side of Brookdale homes intact until the railway right-of-way is truly needed. This will allow my neighborhood to remain intact, and no disruption of my current life to happen.

Response

Caltrans shares the concern about affordable housing. In consultation with the Golden Gate Bridge, Highway and Transportation District, a plan to replace the Northwestern Pacific Railroad (NWPR) corridor has been conceptually developed. The support for a commuter rail service in the US 101 corridor in Marin and Sonoma Counties, including the completion of the draft final report of the *S.M.A.R.T. Commuter Rail Implementation Plan* and the rail funding in the Governor's Transportation Congestion Relief Plan, is growing. This support for rail service necessitates that Caltrans secure the replacement right of way expeditiously, prior to the construction of the southbound HOV lane in the Brookdale and Lincoln Avenue areas. The replacement of the rail right of way will include all necessary demolition of homes and properties acquired by Caltrans.

18 Jay Tashiro, Town of Corte Madera

By letter dated March 17, 2000, Jay Tashiro, Town of Corte Madera, stated

Comment 1

An argument can be made that an increase in noise from US 101 will have a significant impact on residential and commercial properties in the Town of Corte Madera. Please consider using a new product, rubber modified asphalt, for paving US 101 as a mitigation feature to reduce the traffic noise generated at the pavement. A recent report on rubber modified asphalt use in Sacramento County is attached.

Response

Your comment is appreciated. Caltrans will evaluate the pavement type in the design phase.

19 Bob Cooper

By letter dated March 15, 2000, Bob Cooper stated:

Comment 1

Caltrans has left out of the FEIS/R or ignored the problems of reflected noise and multiple reflections concerning the impacted hillside residents overlooking the parallel sound walls through San Rafael.

Response

Please refer to Caltrans response to Mr. Murphy's Issue # 1 & 2.

Caltrans has fully discussed reflected noise and multiple reflections in the environmental document. All noise studies conducted by Caltrans and others have shown no noticeable reflection problems. In fact, no conclusive confirmation of noticeable, reflective noise has been presented to Caltrans. However, the new noise evaluation by Caltrans and Marin CMA will further investigate the noise issue in the hillsides.

Comment 2

Jeffery A. Lindsey of the FHWA and Harry Y. Yahata of Caltrans have both apparently approved this document without a thorough and full understanding of the potential noise impacts. Instead, they were presented with a carefully crafted but none-the-less diluted and distorted excuse for a FEIR/S. The FEIS/R is biased and does not fully identify all the potential environmental impacts.

Response

The FEIS/R has fully addressed the environmental impacts and it does meet all NEPA and CEQA requirements.

Comment 3

FHWA and Caltrans approved an Environmental Impact Report/Statement that has not done a complete, unbiased and thorough traffic noise analysis for the project. The DEIR and the FEIR/S are required by law to identify ALL potential noise impacts in noise sensitive areas for all the alternatives under consideration, including the no-build alternative.

Response

All noise impacts for this project have been identified and addressed in the environmental document. The upcoming noise evaluation will further study the noise issue in the hillsides. Caltrans, along with Marin citizens Patrick Murphy, Bob Cooper, and Simon Palmer, and the Marin CMA are working to define the details of the scope of the this noise investigation.

Comment 4

Caltrans has not identified reflective noise impacts because it might set a precedent which would require them to retrofit other already impacted areas due to parallel wall configuration.

Response

The Noise Impact Report and the FEIS/R have fully addressed the potential environmental impacts of reflective noise.

Comment 5

Caltrans has side stepped FHWA regulations and Caltrans own noise protocol and "chosen" the impacted residents immediately adjacent to the freeway and ignored the noise sensitive areas overlooking the freeway because it concerns "multiple reflections."

Response

Caltrans has fully complied with FHWA guidelines and regulations as stated in the Noise Impact Report. All noise sensitive areas for this project have already been addressed. The upcoming noise evaluation will further study the noise issue in the hillsides. However, there has been no substantiation of noticeable, reflective noise presented to Caltrans. It is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration

with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

Comment 6

The FEIS/R uses qualifying words like "typically" or "we believe" or "in our opinion" in place of science to downplay or to reply to issues this is unscientific.

Response

The discussions on noise presented in the FEIS/R are accurate. All Caltrans and FHWA guidelines and regulations were followed closely.

Comment 7

The San Rafael Citizen's Advisory Committee for Caltrans had to cancel numerous meetings because of Caltrans lack of cooperation and/or refusal to attend our meeting. When Caltrans staff did attend they basically provided lip service and little more.

Response

Caltrans has been working with the Marin CMA very closely to address the concerns of the community. Caltrans and the Marin CMA have hosted numerous public meetings to discuss different aspects of the project.

Comment 8

The City of San Rafael, namely the Mayor and City Council, who appointed the seven member San Rafael Citizen's Advisory Committee would not let us comment on the DEIR as a group and disbanded our committee before the release of the FEIS/R.

Response

Caltrans has received and addressed a tremendous amount of public comments during the course of the environmental process. All public comments whether from individuals or a group have been fully addressed in the FEIS/R.

Comment 9

The community as a whole has received late notices, misinformation and one problem after another.

Response

All public notices were handled properly and sufficient time was given to the public.

Comment 10

The heading , "NOISE" in Table I, "Comparison of Alternatives," in the FEIS/R doesn't include any calculations or predictions for the various alternatives that include reflected noise or multiple reflections as part of identifying the possible worst-case noise impacts.

Response

The reflected noise and multiple reflections have been discussed in full detail in the FEIS/R.

Comment 11

The FEIS/R states, "Far away receptors, such as residents on hillsides, would typically only be considered if their noise levels approach or exceed 67 dBA." The FEIS/R appears to use the 1986 "before and after" studies with only spot-readings, without noting significant meteorological conditions, and at distances of up to 1,300 feet, to justify not identifying the potentially noise impacted residents or noise sensitive areas on hillsides. This violates Federal law (772) and Caltrans own Noise Protocol which requires Caltrans to identify all noise sensitive areas.

Response

The spot readings were taken at the noisiest hour of the day and they represented peak noise levels. Caltrans and the Marin CMA have committed to further evaluate the reflection noise issue in the hillsides. This new evaluation is currently underway. There has been no violation of Federal law (772) as stated in the FEIS/R.

Comment 12

Because of the complex topography of the project through a short, narrow amphitheater shaped valley this project cannot be considered as typical (totally different topography than the Caltrans I-405 study or the I-99 study) and requires special consideration in identifying noise sensitive areas. Considering the complex topography of the area and without fully identifying and analyzing the potential noise impacts, how does Caltrans know which areas may or may not be impacted by freeway noise, reflected or otherwise which may or may not approach or exceed 67 dBA?

Response

The Traffic Noise Impact Report that was prepared by Caltrans in June 1997 fully evaluated the noise impact of the Highway 101 widening project in San Rafael. Please refer to the Noise Impact Report for more detail.

Comment 13

The FEIR/S states. "Further evaluation of reflective noise and alternative noise barrier location and types are planned during the final design phase at the request of the County Congestion Management Agency." We didn't realize that the Marin Congestion Management Agency had the power and authority to override NEPA, CEQA, FHWA guidelines

Response

Caltrans has been working very closely with the Marin Congestion Management Agency (CMA) to address the concerns of the public. In response to concern from the community, the Marin CMA has requested Caltrans to conduct an additional noise evaluation. Caltrans and the Marin CMA have hosted numerous public meetings to discuss the project. Mr. Bob Cooper, Mr. Patrick Murphy and Mr. Simon Palmer have attended these meetings.

All NEPA, CEQA and FHWA guidelines have been followed very closely by Caltrans. All required environmental issues, including traffic noise, are addressed in the FEIS/R. The Marin CMA's input and the scope of the upcoming noise evaluation is in addition to the NEPA and CEQA environmental process.

Comment 14

The Noise Report is required by law to identify potential noise impacts before the project is approved by the FHWA or Caltrans --- not afterwards.

Response

All noise impacts have already been identified and addressed in the FEIS/R. Please refer to the document for more detail.

Comment 15

Caltrans' own TRAFFIC NOISE PROTOCOL and TECHNICAL NOISE SUPPLEMENT (TeNS - A Technical Supplement to the Traffic Noise Analysis Protocol) require analysis if the noise levels are within 5 dBA of the NAC. Why does Caltrans claim a generally excepted 1 dBA difference?

Response

All noise levels throughout the project limits were fully evaluated as stated in the Noise Impact Report. Please refer to the Noise Impact Report for more detail.

Comment 16

TeNS States:

"The screening procedure is intended to determine whether a detailed analysis is necessary. If a project passes the screening procedure, further analysis is normally not necessary.

In instances when a project is considered controversial or when the net effects of change in topography and shielding are not obvious, a detailed analysis is warranted even if the screening procedure may indicate otherwise

Following is a summary of the screening procedure steps:"

"Determine if there are potentially impacted receivers. If there are no impacted receivers, no further analysis will be necessary."

"Determine if the project will be along an existing alignment or realignment. If it will be on a new alignment, the screening procedure cannot be used and a detailed analysis is required."

"Determine if Shielding (or lack thereof)of the receivers will be the same or improved after the project. If it is not, a detailed analysis is required."

"Measure the existing worst hourly levels at the critical receivers. If the existing noise levels are less than 5 dBA below the applicable Noise Abatement Criteria (Table 2-1) , a detailed analysis is required."

If a residence has a measured reading as low as 62 dBA, Caltrans is required by their own Noise Protocol to do a detailed analysis. Don't the San Rafael hillside residents meet this criterion?

Response

The Traffic Noise Impact Report for this project was prepared in June 1997. The noise abatement criteria (Table 2-1) in question is part of the Traffic Noise Analysis Protocol which was not adopted until October 1998. The referenced Noise Protocol was not available at the time the Traffic Noise Impact Report was prepared.

The criteria will be met in the upcoming noise evaluation.

Comment 17

Caltrans has never officially recognized and continues to refuse to identify the potentially impacted residents on the hillsides overlooking the parallel noise barriers which were constructed in the mid-1980's at a H/W ratio of less than 10:1.

Response

Caltrans has fully discussed reflected noise and multiple reflections in the environmental document. All noise studies conducted by Caltrans and others have shown no data of reflection problems. In fact, there has been no substantiation of noticeable, reflective noise in the hillsides presented to Caltrans. However, the new noise evaluation by Caltrans and Marin CMA will further investigate the noise issue in the hillsides

Comment 18

Volume II of the *FEIS/R* states that a Caltrans Noise Study on August 19-21, 1997 at 21 La Vista Way included two 24-hour noise studies. One of the studies indicated a peak noise level of 63 dBA. Since this is below 67 dBA, no further studies were conducted. The other 24-hour study occurred on a rainy day, automatically voiding the study. Since this was less than 5 dBA below the NAC of 67 dBA, Caltrans is required by their own Noise Protocol to do a detailed analysis as part of the Noise Study. No detailed analysis has ever been done as part of the Noise Report as required.

Response

The noise measurements at 21 La Vista Way have been addressed in the *FEIS/R*. Additionally, the upcoming noise evaluation will further evaluate this area.

Comment 19

How is it that Caltrans has failed and refuses to do follow-up studies, as part of the NOISE REPORT or the *FEIR/S*, in a potentially impacted area such as La Vista Way with a reading of 63-64 dBA, while it includes and is planning to build soundwalls for residences that only have readings of 57, 60 and 63 dBA?

Response

Caltrans has proposed soundwalls in areas that do meet the established noise criteria for noise abatement. The property at La Vista Way did not qualify for noise abatement based on the noise measurements taken at that site.

Comment 20

Instead of following their own Noise Protocol and FHWA requirements, Caltrans has written their FEIR/S based on opinions, beliefs and bad scientific protocol.

Response

The FEIS/R is based on CEQA and NEPA regulations. All noise discussions are based on Caltrans and FHWA guidelines and regulations.

Comment 21

Caltrans studies (I-405 and I-99) are supposed to be similar in topography and climate to this project. This is not the case. The "I-405 Study" from Southern California has a different topography and a very different climate. The I-405 report also states, on page 26 of that document, "Due to the complex geometry of the project site the results of this study should be considered specific to this site only. They should not be applied to other parallel sites." Why does Caltrans continue to refer to the I-405 study in the DEIR/S or the FEIR/S if the I-405 results are to be considered site specific and should not be applied to other parallel sites?

Response

The same response can be used to answer comments # 21 & 22:

All the reflective noise studies mentioned in the FEIS/R deal with the acoustical performance of parallel noise barriers and the possibility of noise reflection problems. These studies were performed under carefully documented 'real world' conditions and indicated no reflection problems. However, these studies did clearly demonstrate the profound effect of meteorological conditions on traffic noise levels. There has been no data indicating noticeable, reflective noise presented to Caltrans. All the noise studies conducted by Caltrans and others have not provided any conclusive results indicating reflective noise problems. All studies of reflective noise are relevant to all locales including San Rafael.

Comment 22

Why was the "I-405 Report" referenced in the Noise Report, DEIR/S and now the FEIR/S if it is specific to (that) site only and should not be applied to other parallel sites?

Response

All the reflective noise studies mentioned in the FEIS/R deal with the acoustical performance of parallel noise barriers and the possibility of noise reflection problems. These studies were performed under carefully documented 'real world' conditions and indicated no reflection problems. However, these studies did clearly demonstrate the profound effect of meteorological conditions on traffic noise levels. There has been no data indicating noticeable, reflective noise presented to Caltrans. All the noise studies conducted by Caltrans and others have not provided any conclusive results indicating reflective noise problems. All studies of reflective noise are relevant to all locales including San Rafael.

Comment 23

If Caltrans is claiming to use state-of-the-art technologies, why did Caltrans fail to include and/or reference the TRAFFIC NOISE PROTOCOL (Oct.1998) and the TECHNICAL NOISE SUPPLEMENT (TeNS) in the FEIR/S?

Response

The Traffic Noise Impact Report for this project was prepared in June 1997. The Traffic Noise Analysis Protocol was not adopted until October 1998. The referenced Noise Protocol was not available at the time the Traffic Noise Impact Report was prepared. However, the Noise Protocol will be utilized in the upcoming noise evaluation.

Comment 24

In preparing the FEIR/S, Caltrans deleted and/or omitted key phrases, sentences and paragraphs in a clear attempt to downplay and distort the potential impacts of reflected and multiple-reflected noise.

Response

No key phrases sentences or paragraphs were deleted in the FEIS/R.

Comment 25

Since the FHWA has defined a substantial noise decrease as 5dBA, why is it left to the individual states to define for themselves what a substantial noise increase may be? How can Caltrans define 12 dBA increase (more that twice the difference as defined by the FHWA for a decrease) a substantial.? Substantial increases and decreases by definition should be an equal quantitative amount.

Response

The referenced 5 dBA noise reduction is not defined as substantial. FHWA and Caltrans provide a minimum of a 5 dBA noise reduction when building sound walls.

However, the referenced 12 dBA noise increase is indeed defined as a substantial increase.

There is no correlation between the two.

Comment 26

The FEIS/R included sentences from the TeNS with deleted and omitted phrases. The FEIS/ R is a distorted and biased discussion which clearly attempts to put an almost pathological spin on the question of reflected noise. It appears that Caltrans even tries to prove that the phenomenon of noise reflections and/or multiple reflections don't exist in the State of California by stating, "Measured increases due to noise reflections of more than 3 dBA have never been measured by Caltrans."

Response

No key phrases, sentences or paragraphs were deleted in the FEIS/R. The noise language in the FEIS/R is consistent with the findings of the Noise Impact Report. It is also compliant with the noise concept presented in the TeNS.

Comment 27

The FEIS/R includes misleading statements on how much degradation takes place depending on the contributions of reflections between parallel barriers, site geometry and barrier configurations.

Response

There has been no misleading concepts or language in the FEIS/R. Please refer to the Noise Impact Report for more detail on noise issues.

Comment 28

The sentence, "Measured increases due to noise reflections of more than 3 dBA have never been measured by Caltrans," in the FEIS/R is altered. The original sentence in the TeNS reads as follows, "Measured increases due to noise reflections of more than 3 dBA have never been measured by Caltrans, however, claims of 10 to 20 dBA increases have occasionally been made." By editing the sentence for the FEIR/s, Caltrans is clearly attempting to present a biased distortion of the truth concerning potential noise impacts.

Response

The referenced discussion in the FEIS/R was independent of the referenced discussion in the TeNS.

Comment 29

Caltrans was aware of reflective and multi-reflective noise when they first built the walls in San Rafael since they referenced the FHWA guidelines which identified the problem in the DEIR for the freeway widening in the early 1980's. Caltrans ignored State and Federal guidelines went

ahead and built the soundwalls at a H/W ratio of less than 10:1 and in some case it appears the walls are at a ratio of 8:1.

Response

Caltrans has never been presented with substantiation of noticeable, reflective noise in the hillsides. However, the upcoming noise evaluation will further investigate the noise issue in the hillsides.

Comment 30

Federal guidelines and the new TNM, which is being phased in, require Caltrans and other State agencies to mitigate impacts where the walls are located at a ratio of less than 10:1 and analyze noise impacts for walls between 10:1 and 20:1. Walls greater than 20:1 do not have to be analyzed. Even Caltrans own I-99 study suggested that Caltrans analyze soundwalls at a ratio between 10:1 and 20:1 if there was any special concerns, complex topography or controversy. This project has been filled with controversy since the walls were constructed in the 1980's. Why hasn't Caltrans analyzed the reflected noise impacts for this project/

Response

Caltrans has discussed reflected noise in detail in the FEIS/R. Please refer to the document for more detail. It is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

Comment 31

The parallel noise barriers through San Rafael have a ratio of less than 9:1 in some situations and the planned over-lapping soundwalls at the North end of Lincoln Avenue will have a ratio of less than 2:1. However, Caltrans has refused to analyze the potential impacts stating they the walls have to overlap to be effective --- totally ignoring the potential and possible problem of multiple reflected noise.

Response

The project will augment the distance between parallel barriers to an optimum distance.

Comment 32

The FEIS/R states, "Although there have been claims to this effect, there are no known instances where reflective parallel walls in any configuration, anywhere, have ever measurably increased noise levels over those without barriers." This is very misleading and inaccurate. Both the FEIR/S and TeNS refer to the "Dulles" study conducted by the U.S. Department of Transportation, Volpe National Transportation Systems Center

Response

The referenced statement is accurately stated in the FEIS/R.

Comment 33

The FEIR/S mentions the "Dulles Study" yet it fails to mention the important results that clearly illustrates possible and potential noise impacts of up to 6dBA if the walls are not properly designed. Again the failure of the FEIR/S to provide all the facts exhibits an unfair and possibly even fraudulent bias on the part of Caltrans.

Response

It is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

Comment 34

The statement in the FEIS/R, "typical parallel barriers sites along California highways" is misleading and ignores on-and-off ramps which include soundwalls, as well as sites of special complex topography ---such as that in San Rafael where the highway passes through an amphitheater-shaped valley and the 12 foot soundwalls are separated at a distance of perhaps 90 feet and at ratio of as little as 8:1. US 101 in San Rafael is not a "typical" site.

Response

The Noise Impact Report for this project fully evaluated the topography of the affected areas within the project limits. Please refer to this document for more detail.

Comment 35

The Dulles Study was able to measure increased noise levels of up to 6 dBA due to multiple reflections between reflective parallel walls. Caltrans omitted this fact in the FEIR/S. This clearly and obviously disproves Caltrans claim that: "Although there have been claims to this effect, there are no known instances where reflective parallel walls in any configuration, anywhere, have ever measurably increased noise levels over those without barriers."

Response

All pertinent aspects of the Dulles Study were discussed in the FEIS/R.

Comment 36

It should be Noted: Caltrans has failed in the FEIR/S to identify and/or mitigate all the potential noise impacts and noise sensitive areas under all the different alternatives proposed for this project, including the no-build alternative.

Response

The Noise Impact Report and the FEIS/R fully evaluated and disclosed the noise impacts.

Comment 37

Caltrans states in the FEIS/R, "Sound absorptive materials can either be an inherent property of the barrier or can be added on to an existing barrier (retrofit) . Either way, the cost of the barrier will likely increase substantially." The above comment in the FEIR/S is very misleading and inaccurate.

Response

In the final design phase, Caltrans will further evaluate the noise barriers and make recommendations for any design changes. Additionally, the upcoming noise evaluation will consider the use of sound absorptive material if warranted.

Comment 38

Caltrans has never been able to adequately address the question of reflected noise. They refuse to use Federal guidelines to identify all noise sensitive areas or potentially impacted residents and rely on Caltrans' own tainted site "specific studies" to summarily dismiss the problem.

Response

Please refer to the detailed discussion on reflective noise in the FEIS/R. Caltrans has fully addressed the issue and will evaluate it further with the upcoming noise evaluation in the hillsides.

Comment 39

Because of their arrogant attitude and poor understanding of the science of acoustics, Caltrans engineers have never fully identified the problem of reflected noise and multiple reflection like other states have done in the past.

Response

Please refer to the detailed discussion on reflective noise in the FEIS/R. Caltrans has fully addressed the issue and will evaluate it further with the upcoming noise evaluation in the hillsides.

Comment 40

Caltrans position after the "I-405 Study" and the "I-99 Study" and apparently its current position was clearly stated in their report entitled "CALIFORNIA NOISE BARRIERS JUNE 1992" in which the following was written on page 80 of that document: "The question of reflected noise still needs to be resolved. If it were true that neighborhood noise levels were actually increasing as a result of constructing new barriers, then the whole idea behind constructing barriers as a method of mitigation would appear to be flawed."

Response

The referenced material is out of date. Please refer to Caltrans current noise guidelines for a better understanding of Caltrans guidelines and procedures.

Comment 41

"The question of reflected noise still needs to be resolved. If it were true that neighborhood noise levels were actually increasing as a result of constructing new barriers, the whole idea behind constructing barriers as a method of mitigation would appear to be flawed."

Response

The referenced material is out of date. Please refer to Caltrans current noise guidelines for a better understanding of Caltrans guidelines and procedures.

Comment 42

Because Caltrans has never identified the problem reflected noise or multiple reflections and failed to resolve the question of reflected noise, they have summarily dismissed absorptive soundwalls in the State of California and never approved them.

Response

Absorptive material will be considered if it is found to be warranted.

Comment 43

Further more, Caltrans has not kept up with the state of the art of absorptive walls in regards to what is available and what the cost are versus the cost of reflective walls. Contrary to what Caltrans states in the FEIS/R, current absorptive walls will not substantially increase the cost of the project. Caltrans should and needs to include and compare the costs of the various absorptive walls versus reflective walls in the FEIRIS to verify their claims.

Response

The statements made in the FEIS/R regarding absorptive material are accurate. If absorptive material is warranted and cost effective, it will be considered.

Comment 44

The FEIR/S states, "No objective evidence based on noise measurements has ever been advanced that noise barriers increase noise levels at any distance." The FEIS/R omits the phrase, "other than under the limited conditions described in section N-8100." which however limited, do exist. Special conditions and topography are very similar to the conditions and topography of the

present and future sound walls through San Rafael. Obviously, this last part of the sentence changes the meaning and/or possible interpretation of the sentence and reveals a whole new set of special conditions.

Response

The referenced statement is the FEIS/R is not misleading and no pertinent facts has been omitted.

Comment 45

Caltrans fails to mention or discuss, even though matter was brought up for both the DEIR and the FEIS/R, (page 83 of Vol-2 of the FEIR/S) that the "I-405 Study" states under RECOMMENDATIONS that: "Due to the complex geometry of the project site, the results of this study should be considered specific to this site only. They should not be applied to other parallel sites."

Response

The I-405 study is just one of many studies that was discussed in the FEIS/R. All reflected noise studies are relevant.

Comment 46

By not including the critical information regarding site specificity of the I-405 study in the Noise Report, the DEIR/S and the FEIR/S, Caltrans clearly demonstrates an intent to misrepresent information, mislead the public and elected officials, and distort the environmental document for this project.

Response

The discussion of reflected noise in the FEIS/R does include relevant information from the I-405 study.

Comment 47

The I-99 Sacramento study could also be considered site specific since the topography of the highway is vastly different than that in San Rafael, with the walls almost double the distance between them (approximately 15:1) as compared to San Rafael where the H/W ratio between the walls may be as little as 8:1. The noise results of both studies are site specific and should not be used in reference to other sites.

Response

The Route 99 Sacramento study as stated in the FEIS/R is relevant to other sites, including San Rafael. All reflected noise studies are conducted in accordance with the noise guidelines and procedures. These noise studies are relevant to other sites.

Comment 48

Before and after comparisons of noise data are meaningless if meteorological conditions were not carefully matched. Therefore, information Caltrans used for the FEIS/R from the "Before and After Study" is meaningless.

Response

Meteorological conditions were matched as much as possible when noise measurements were taken before and after the existing soundwalls were built in San Rafael.

Comment 49

The FEIR/S should have included the meteorological conditions for both the before and after studies for the San Rafael test to be meaningful. Without carefully matching of meteorological conditions and noise data it would appear that studies like the San Rafael "Before and After" Study (1983) that don't include detailed and complete meteorological conditions are not meaningful.

Response

Meteorological conditions were matched as much as possible when noise measurements were taken before and after the existing soundwalls were built in San Rafael.

Comment 50

Does this fact, the lack of detailed and complete meteorological conditions, also invalidate all the other noise studies for this project that did not include or record the meteorological conditions at the time of the study?

Response

Meteorological conditions were matched as much as possible when noise measurements were taken before and after the existing soundwalls were built in San Rafael. In case of the other reflected noise studies, meteorological conditions were very carefully matched and evaluated.

Comment 51

The FEIS/R is misleading since Caltrans failed to state the results of the Dulles study where a 6 dBA noise increase was measured due to multiple reflection between parallel barriers. This proves the fact that under certain barrier configurations, parallel barriers have the potential to increase noise levels enough to be noticeable by the human ear.

Response

The FEIS/R correctly stated the findings of the Dulles noise study.

Comment 52

Because of the complex nature of sound, the variables involved, the difficulties in measuring under "real world" conditions, and the complex and different geometry of each sites, the results of both studies are site specific and should not be used in reference to other sites.

Response

All reflected noise studies are relevant to other sites, including San Rafael.

Comment 53

Caltrans has deleted and/or omitted critical information from the FEIR/S. Caltrans omitted information about diffraction when compared to loss of "ground effect " can actually increase noise levels behind the wall at certain distances as the explained in TeNS. This portion of the TeNS which also was not included, deleted and/or omitted from the FEIR/S for this project.

Response

All pertinent information regarding the noise issue has been included in the FEIS/R.

Comment 54

Caltrans experience has been that atmospheric conditions can fluctuate noise levels at those distances by more than 10 dBA, with or without noise barriers.

Response

The noise discussion in the FEIS/R discusses this issue in detail. Please refer to the document for more information.

Comment 55

The FEIS it states that: "Some claim that noise waves go over the noise barrier and come back down to the ground. This is diffraction and is actually responsible for noise attenuation, rather than an increase in noise, when compared with the direct noise received without a noise barrier." The above statement in the FEIR/S is incomplete and misleading. Unfortunately, the FEIR/S is again incomplete and fails to provide a clear and unbiased perspective.

Response

The referenced statement in the FEIS/R is not misleading and it is indeed accurate.

Comment 56

Extensive amounts of field data gathered during a Caltrans noise propagation research project shows that differences between excess attenuation rates of elevated sources (e.g. truck stacks, noise diffracted over a noise barrier) and those close to the ground (e.g. tire noise) diminish after a hundred meters (few hundred feet) or so. The findings can be applied to noise barriers which in essence "elevate" the source.

Response

Comment noted.

Comment 57

The FEIS/R in Section 3.14.3, "Existing Noise Barriers in San Rafael as a Result of Previous Highway 101 Widening, presents a brief and diluted version of the controversy surrounding the existing noise barriers. Because of the profound impact meteorological conditions can have on noise studies and without Caltrans fully understanding or noting meteorological conditions at the time of noise studies were conducted in the early 1980's, it would appear all noise tests for this project were without meaning and should be voided. There is no way of knowing the meteorological conditions in this area, including which way the wind was blowing or at what speed, or what effect that had on the results.

Response

The Noise Impact Report dated June 1997 evaluated the noise impact of the Highway 101 widening project in full detail. The report was based on the code of Federal Regulations (23 CFR 772) and Caltrans policy in assessing the noise impacts and recommending noise abatement measures to reduce impacts to acceptable levels. All CEQA and NEPA requirements regarding the assessment of noise impacts were followed.

Comment 58

The FEIS/R states, "These noise barriers were cost effective and met with the consensus of the affected property owners." This statement is misleading because it fails to identify all the affected property owners. Potentially impacted residents on the hillsides were questioning the possibilities of reflected noise before the walls were even constructed. Once the walls were constructed the controversy and the reflected noise and/or multiple reflection increased.

Response

The affected property owners have been identified as part of the noise evaluation for this project and the required noise abatement has been recommended.

Comment 59

The FEIR/s states, "At the time of the study, Caltrans did not have a good understanding of reflected noise and the width to height ratio of 10:1. Subsequently, this concept was not used or discussed in the noise study." It is not believable that Caltrans did not have a good understanding of the basic concept of reflected noise

Response

Please refer to the detailed discussion of reflected noise in the FEIS/R for more information. Caltrans has addressed the issue and will follow up with the upcoming noise evaluation in the hillsides.

Comment 60

The real reason this concept were not discussed or addressed in the DEIR and/or the FEIR for the previous freeway widening was the simple fact that Caltrans was either too incompetent or they intentionally ignored Federal guidelines.

Response

Caltrans did indeed address the reflected noise issue in the FEIS/R. Please refer to the document.

Comment 61

Unfortunately, because of only "minimal meteorological matching," none of which was provided in the FEIR/S, and the fact that all "before studies " were spot readings instead of detailed 24 hour tests, it appears these results are not meaningful and should be disregarded.

Response

The referenced noise study was conducted in accordance with all applicable noise procedures and guidelines, matching meteorological conditions as much as possible.

Comment 62

The FEIS/R doesn't begin to seriously address or describe the potential noise impacts, the currently noise impacted areas or the noise sensitive areas which have been complaining about increases in traffic noise since the first parallel soundwalls were built in San Rafael in the 1980's.

Response

The FEIS/R does address the potential noise impacts in detail. Please refer to the FEIS/R for more information.

Comment 63

Caltrans hasn't had to analyze or identify the potential noise impacts for the hillside residents, they haven't identified any possible mitigation measures. Since they don't know what the impacts are or what the mitigation might be for such impacts, Caltrans hasn't figured those costs into the budget for the project.

Response

The upcoming noise evaluation will further investigate the noise issue in the hillsides. Potential abatement measures have been taken into consideration.

Comment 64

As long as Caltrans can downplay or ignore the noise sensitive areas above the walls, Caltrans will continue to only address those impacted residents living immediately adjacent to the freeway, even if the walls are impacting other areas behind the walls with reflected noise and multiple reflections.

Response

Caltrans has addressed the noise issue in the impacted areas. The upcoming noise evaluation will further investigate the reflected noise issue in the hillsides.

Comment 65

Caltrans failed to seriously discuss or identify the current or future impacted resident in the hillsides. Caltrans is required by State and Federal law, following NEPA and CEQA regulations, to identify ALL CURRENT AND POTENTIALLY IMPACTED AREAS UNDER EACH OF THE ALTERNATIVES BEING CONSIDERED, INCLUDING THE NO-BUILD ALTERNATIVE.

Response

The detailed discussions of reflected noise in the FEIS/R clearly state Caltrans' understanding of the noise issue. Caltrans and the Marin CMA are committed to study the issue further with the upcoming noise evaluation.

Comment 66

How can Caltrans write an entire NOISE STUDY as part of DEIR and FEIR for this project and not even follow their own Noise Protocol and do THE NOISE ANALYSIS SCREENING PROCEDURE CHECKLIST for the hillside residents who have been complaining for 15 years about increases in noise due reflected noise and multiple reflections?

Response

All noise guidelines and regulations that were applicable at the time the noise investigation was conducted were followed.

Comment 67

It could be argued that the portion of US 101 that transverses the narrow, amphitheater-shaped valley actually begins before Linden Lane and starts its upward grade closer to Mission Ave.

Response

Comment noted.

Comment 68

Caltrans is misrepresenting the degree of homeowners who may be impacted by noise from the freeway. By stating that "some homeowners...have expressed concern." This doesn't even begin to illustrate the over 283 impacted residents.

Response

Caltrans has identified the impacted areas in San Rafael and other areas within the project limits. The Caltrans noise investigation and the upcoming noise evaluation examines the potential noise impact on all receptor sites within the project limits.

Comment 69

Caltrans staff has repeatedly told the hillside residents on different occasions, "It's your turn to get the noise, " or "You just think you hear an increase in noise, " or " It's psychological. "

Response

This statement is not accurate.

Comment 70

Caltrans refuses to acknowledge or analyze, in the FEIR/S, that walls through San Rafael are at a ratio of less than 10:1 and that the residents are entitled to be considered for mitigation if there is noise impacts now or might be in the future as a result of reflected noise or multiple reflections between the parallel barriers.

Response

It is stated in the FEIS/R that the project will increase the distance between parallel walls. Thus improving the width-to-height ratio to the optimum 10:1.

Comment 71

Caltrans has not provided cross sections which would help provide a better understanding of potential traffic noise impacts for the hillside residents?

Response

The upcoming noise evaluation by an independent consultant will further evaluate the noise concerns of the residents in the hillsides.

Comment 72

The problem, which the FEIR/S has failed to acknowledge or identify, is the fact that a large portion of the parallel walls through San Rafael (over several hundred feet) are at a ratio of less than 10:1 and in some areas that ratio may be as little as 8:1. They are causing problems of reflected noise and multiple reflections.

Response

The project will increase the distance between parallel walls, thus improving the width-to-height ratio to the optimum 10:1.

Comment 73

Without identifying the current and future noise impacts due to reflected noise and multiple reflection between the parallel walls, Caltrans is vastly under-estimating serious and significant noise impacts. Caltrans is also violating CEQA and NEPA regulations.

Response

Caltrans has complied with all CEQA or NEPA regulations. Caltrans and the Marin Congestion Management Agency do acknowledge the concerns of the public regarding the traffic noise. Caltrans will further investigate the reflected noise issue in the upcoming noise evaluation.

Comment 74

The Noise Impact Report of June 1997, ...was based on the Code of Federal Regulations (23CFR772) and Caltrans policy in assessing the noise impacts and recommending noise abatement measures to reduce impacts to acceptable levels. After, a detailed study, noise barriers were recommended.

Response

The above statement is accurate.

Comment 75

The above statements are very misleading and it again appears to be pathological in nature. What is interesting is the use of the words "was based on" instead of what might have been a more appropriate word such as "followed." However, after reviewing the Noise Impact Report, the 23CFR772 and Caltrans Noise Protocol and TeNS perhaps "was based on" is the appropriate choice of words.

Response

The Noise Impact Report of June 1997 did satisfy all the requirements of 23 CFR 772 and other Caltrans and FHWA regulations and guidelines.

Comment 76

It is very clear after reviewing the 23CFR772, Caltrans Noise Protocol, TeNS and also CEQA and NEPA that the intent of these documents and guidelines is to do a job correctly, professionally and to follow all rules and regulations during the course of your endeavor. The Marin 101 Gap Lane Closure Noise Impact Report of June 1997 falls far short in the intent of the original material. It is obvious from reading the "Noise Report" that its intent is to exploit the original documents in a biased and one-sided argument.

Response

The Noise Impact Report of June 1997 did satisfy all the requirements of 23 CFR 772 and other Caltrans and FHWA regulations and guidelines.

Comment 77

Caltrans knows the current wall configuration through San Rafael is less than 10:1 but refuses to identify or analyze the possible multiple reflection problem. Caltrans spends months and years, hundreds of pages of documents, attempting to refute the science of acoustics and arguing that soundwalls don't reflect noise or cause multiple reflections and then states "it is Caltrans policy to avoid noise reflections through appropriate design measures."

Response

It is Caltrans policy to avoid noise reflections through appropriate design measures. The project will increase the distance between parallel walls, thus improving the width-to-height ratio to the optimum 10:1.

Comment 78

It's obvious from reading the original NOISE REPORTS for the project back in the 1980's that Caltrans was aware of Federal Guidelines which warned against reflected noise and multiple reflections and Caltrans went ahead and built the walls anyway.

Response

This statement is not accurate. All Caltrans noise studies have been in compliance with all guidelines and regulations. Caltrans has never been presented with verification of noticeable, reflective noise.

Comment 79

The FEIS/R states, "or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable." There is no choice for appropriate or even inappropriate barrier material that's reasonable and feasible in the State of California because Caltrans has never admitted that soundwalls reflect noise so they have never approved appropriate barrier materials that are reasonable and feasible. What choice is there? What is appropriate barrier material? What is feasible and reasonable?

Response

The upcoming noise evaluation by an independent consultant will further evaluate the noise issue in the hillsides. If warranted, Caltrans will consider appropriate barrier material if it is cost effective.

Comment 80

The upcoming Noise Evaluation implies that Caltrans has done a FEIR/S and not done a complete noise analysis for all the Noise Sensitive areas?

Response

The Noise Impact Report dated June 1997 evaluated the noise impact of the Highway 101 widening in full detail. The report met all the guidelines and regulations of Caltrans and FHWA. Caltrans did identify all the noise impacts and made recommendations for abatement. The upcoming noise evaluation will further study the noise issue in the hillsides. Caltrans, along with Marin citizens Patrick Murphy, Bob Cooper, and Simon Palmer, and the Marin CMA are working to define the details of the scope of this investigation.

Comment 81

Caltrans repeatedly ignored the comments and the specific requests of the letter from the City of San Rafael and Vice Mayor, Barbara Heller which stated, "Caltrans should perform the necessary analysis to address the issue of reflected noise." Caltrans has never done any analysis for this project which specifically addresses the issues of reflected noise or multiple reflections. Why was this never done?

Response

Caltrans did indeed address reflected noise in the Noise Impact Report and the FEIS/R. No verification of a reflection problem has been ever presented to Caltrans. All other studies of reflective noise have not found a reflection problem. However, Caltrans and the Marin CMA have committed to further investigate the noise issue in the hillsides in the design phase.

Comment 82

Caltrans, apparently against the wishes of the City, compared San Rafael and other locations in a misguided attempt to prove that soundwalls don't reflect noise.

Response

The comparisons between San Rafael and other reflected noise study sites were done in accordance with applicable noise guidelines and procedures. The results of the comparisons are stated in the FEIS/R. Please refer to the document for more information.

Comment 83

Citizens Advisory Group Chairman Cooper's comments were not carefully considered and were summarily dismissed or edited down to a few words and lumped together with 12 others. Why?

Response

Mr. Cooper's comments along with others were addressed in the FEIS/R.

Comment 84

The DEIS/R and the FEIR/R for this project failed to include all the documents I sent to them with specific questions and comments. Documents which I specifically requested to be included in both the DEIR/S and the FEIR/S. The Caltrans responses that were included were either not completely answered or not even addressed.

Response

All pertinent noise issues presented to Caltrans were incorporated in the discussion of noise in the FEIS/R.

Comment 85

Since the early 1990's, I have requested from Caltrans and the City of San Rafael copies of any follow-up studies done after the construction of the soundwalls in the 1980's. Even as Chairman of the Citizen's Advisory Committee for Caltrans, I was told by Caltrans staff repeatedly and the City of San Rafael that no after-studies were ever conducted. Now, Caltrans claims they did a study in 1983 and 1988. I question these studies as well as the results since they never were available before and since only "minor meteorological conditions" were noted but never included in the FEIR/S.

Response

The referenced noise study was conducted in 1983 and 1988 per request of the San Rafael Public Works Department. Caltrans officially submitted the results of the noise study to the City. A copy of the letter will be provided to Mr. Bob Cooper, Mr. Patrick Murphy and Mr. Simon Palmer. Even though only minor meteorological conditions were met, the referenced noise study is still valid.

Comment 86

Caltrans has said they are going to do a study after the approval of the FEIR/S but have failed to state what the problem is that they will be studying other than to state there is a controversy about reflected noise. There is not a controversy in other states and countries concerning -reflected noise or multiple reflections. If other states and countries acknowledge the problem and mitigate it.

Response

Caltrans has evaluated all noise impacts of the project and has addressed them in the FEIS/R. The upcoming noise evaluation will be conducted to further evaluate the noise issue in the hillsides. Caltrans, along with Marin citizens Patrick Murphy, Bob Cooper, and Simon Palmer, and the Marin CMA are working to define the details of the scope of the upcoming noise investigation.

Comment 87

The FEIR/S fails to calculate the impact of reflective noise by saying they don't believe it's a problem. This is very bad science and is against Federal law, which states that Caltrans must identify in decibels noise impacts and predict (in decibels) future noise impact under each alternative.

Response

Reflected noise has already been addressed in the Noise Impact Report and the FEIS/R. However, the upcoming noise evaluation will study the issue further.

Comment 88

The FEIR/S is still out of date by saying the absorptive walls will significantly increase the cost of the walls. Where are the facts and figures to support this claim?

Response

Caltrans has experimented with absorptive material in District 4. A section the retaining wall in the median along Route 580 in the City of Oakland has been treated with absorptive material. Caltrans is familiar with costs associated with absorptive material.

Comment 89

One reason there are conflicting opinions about the degrading effects caused by multiple reflections between the two barriers is that the problems of multiple reflections is site specific and depends on the configuration of the walls. The FEIR/S needs to properly identify and analyze the source and calculate the recognized phenomenon of reflected noise and multiple reflections. This was never done.

Response

Noise reflection studies are done in accordance with the noise guidelines and procedures. These studies are relevant to all locales, including San Rafael.

Comment 90

The "I-405 Report" was referred to in the FEIR/S even though the document is site specific.

Response

Noise reflection studies are done in accordance with the noise guidelines and procedures. These studies are relevant to all locales, including San Rafael.

Comment 91

The FEIR/S fails to mention or identify the current or future configuration ratio (W/H) in regard to the distance between the walls except to say that most of the walls will be located at a ratio greater than 10:1. Also there are walls, specifically at the Lincoln exit that will not be at a ratio of even 3:1 and the potential impacts have never been recognized by Caltrans.

Response

The width-to-height ratio has been discussed in detail in the FEIS/R. Please refer to the document.

Comment 92

Not all the potential noise impacts have been identified in the FEIS/R.

Response

All the potential noise impacts have indeed been identified in the FEIS/R

Comment 93

Construction of a noise barrier between source and receiver tend to enhance wind effects. The FEIR/S fails to identify and calculate the chances the enhanced wind effects may have on perceived traffic noise due to the removal of large trees, which presently act as a wind break on the west side of the freeway. These issues have still not been addressed or discussed.

Response

Comment noted.

Comment 94

The Lincoln Avenue exit has three noise barriers (S633, S655 and S661) proposed. According to a noise expert, the overlap of walls (at a W/H ratio of maybe 3:1 or 2:1) could cause multiple reflections which, in turn, could actually increase the noise levels behind the walls. " The FEIR ignores the 10:1 ratio and fails to address this issue.

Response

The recommended noise barriers at this location have been studied in detail. The barriers will be placed at optimum locations.

Comment 95

At the location of noise receptors 22 and 22A, the noise abatement barrier originally proposed has been deleted from project. What mitigation is currently proposed for this noise impact?

Response

The recommended noise barriers are all subject to an evaluation of constructibility, feasibility and reasonableness. If a noise barrier is not found to be constructible, feasible or reasonable, it will not be built. The upcoming noise evaluation will further examine all available options for noise abatement.

Comment 96

The FEIR/S attributes a second source of noise impacts at the location of noise receptors 22 and 22A to local traffic underneath the viaduct and states that Caltrans does not mitigate for ambient or background noise. It is very clear that a significant amount of noise is being transmitted through and between the roadbed and is not due to local traffic. What evidence is there for the FEIR/S claim?

Response

This issue has been studied in detail and addressed in the Noise Impact Report and the FEIS/R. Local traffic underneath the viaduct does indeed contribute to noise levels at receptors 22 and 22A.

Comment 97

The FEIR/S failed to identify the noise sensitive homeowners, overlooking the freeway, who may have a significant increase in perceived noise because they will be able to see the relocated noise barriers on the opposite side of the freeway, after the freeway is widened. Calculations and

traffic modeling show that noise reflections and multiple reflections can increase noise levels by more than 6 dBA. Caltrans fails to address these comments.

Response

Caltrans did correctly identify all noise sensitive areas in the FEIS/R.

Comment 98

The FEIR/S failed to identify how the property values have been and/or will be adversely impacted by the reflected noise and/or multiple reflections in combination with the wind effects as a result of the different alternatives.

Response

All studies of reflective noise have shown no conclusive results of reflection problems. In fact, there has been no verification of noticeable, reflective noise presented to Caltrans.

Section 3.14.3 of the FEIS/R discusses reflective noise in detail. There have been numerous studies of reflective noise. The U.S. Department of Transportation, Volpe National Transportation Systems Center, completed two parallel barrier studies during the period of October 1986 through April 1994. These studies have shown no reflection problems. In fact, there has been no data indicating any noticeable, reflective noise problems presented to Caltrans.

Together with the Caltrans studies, it is our conclusion that parallel barrier sites with a width-to-height ratio of 10 or more would have a degradation of less than 3 dBA, an imperceptible noise increase over a single barrier.

Furthermore, it is Caltrans policy to avoid noise reflections through appropriate design measures, such as avoiding barrier configuration with aspect ratios less than 10:1, or if unavoidable, the choice of an appropriate barrier material, if feasible and reasonable.

Comment 99

The FEIR/S fails to address information from the Caltrans report, "CALIFORNIA NOISE BARRIERS, JUNE 1992" stating, "The question of reflected noise needs to be resolved. If it were true that neighborhood noise levels were actually increasing as a result of constructing new barriers, then the whole idea behind constructing barriers as a method of noise mitigation would appear to be flawed." How can Caltrans justify building hundreds of miles sound walls throughout the state of California without knowing the potential noise impacts?

Response

The referenced report dated June 1992 is out of date. Please refer to Caltrans current noise guidelines and regulations.

Comment 100

Federal Guidelines have calculated and warned against reflections and multiple reflections caused by noise barriers for over 25 years. They have recognized these flaws and recommended mitigation. The FEIR/S failed to adequately identify calculate and mitigate existing and future traffic noise impacts caused by noise reflections and multiple reflections as a result of the "special situations" and "certain configurations" of the parallel noise barriers.

Response

As stated previously, reflected noise has been addressed in detail in the Noise Impact Report and the FEIS/R.

Comment 101

The FEIR/S, in Volume 2, whittles the truth down until it no longer exists or if it does, it isn't recognizable. Caltrans summarily dismissed important questions and problems and failed to "carefully consider" my comments as directed by the City of San Rafael.

Response

Caltrans has fully responded to all pertinent comments by Mr. Bob Cooper and other members of the public in Volume II of the FEIS/R.

Comment 102

Volume II of the FEIR/S, Caltrans summed up all my comments and questions regarding the complexities of reflected noise and multiple reflections into two words: Reflected Noise.

Response

Caltrans has addressed the concerns of all residents regarding reflected noise in the FEIS/R. The upcoming noise evaluation will further evaluate the noise issue in the hillsides.

Comment 103

The FEIR/S response to my comments was about all the studies they have done in the past and how they're going to "study" it here in San Rafael.

Response

Comment noted.

Comment 104

The FEIR/S states that at Linden Avenue Undercrossing, the (W/H) ratio of 9.5:1. is within an acceptable range and Caltrans does not believe that the degradation at this segment will be perceptible to the human ear. Because of the complex topography and that fact that this portion of the wall is jutting out from the main part of the wall, it is nearly impossible to know what the noise impacts are going to be without analyzing or calculating it through mathematic equations. According to FHWA guidelines, anything over 20:1 is the acceptable range. Anything between 10:1 and 20:1 should be analyzed, and anything with a (W/H) ratio of less than 10:1 should be mitigated.

Response

Based on the Caltrans noise study, the 9.5:1 (W/H) ratio at Linden Avenue Undercrossing is acceptable.

Comment 105

The FEIR/S states, "Noise abatement measures for residents are only considered for the residents immediately adjacent to the freeway and affected by traffic noise. Caltrans is required by the FHWA to identify noise sensitive areas and predict future traffic noise impacts." Caltrans has never provided any documentation, rules or regulations that specifically state they are only required to mitigate residences immediately adjacent to the freeway. Caltrans is clearly showing a bias and failing to even consider providing equal protection under the law.

Response

Caltrans did follow current guidelines and regulations by evaluating the traffic noise impacts in the affected areas. All impacted areas were identified and abatement measures were recommended.

Comment 106

According to the Caltrans Noise Protocol, it is required to do a detailed analysis for any critical receivers which are within 5 dBA of the NAC (residences are 67 dBA minus 5 dBA = 62 dBA). Yet the FEIR/s states, "Far away receptors, such as residents on hillsides, would only be considered if their noise levels exceed 67 dBA." This appears to be a direct violation of Caltrans very own Traffic Noise Analysis Protocol.

Response

Noise abatement will be considered at receptors where noise levels approach or exceed the 67 dBA criteria.

Comment 107

The whole purpose for the Noise Abatement Program is to identify noise impacts due to traffic noise and consider mitigation. Caltrans apparently has forgotten the goal of the program in trying to limit those who may be impacted to only those homes immediately adjacent to the freeway.

Response

The Noise Impact Report did identify all impacted areas and made recommendations for abatement. This information is provided in the FEIS/R.

Comment 108

The FEIR/S fails to consider an analyze hillside noise impacts, even after: the hillside residents have complained about increases in noise after the walls were built in the mid 1980s; the City requested that Caltrans do a follow up study specifically for the hillside residents; Caltrans identified the 10:1 ratio problem and recognized that the current walls through San Rafael are at a ratio less than that; the Citizen's Advisory Committee requested that Caltrans recognize that the hillside residents are impacted; the City again asked Caltrans to identify the problem for the hillside residents,

Response

All studies of reflective noise have shown no substantiation of reflection problems. In fact, there has been no confirmation of noticeable, reflective noise presented to Caltrans. All the noise studies conducted by Caltrans and others have not shown a noticeable noise increase due to reflections. However, Caltrans and the Marin CMA have committed to further study the noise issue in the hillsides.

Comment 109

By refusing to do any further testing at 21 La Vista, where a leq reading of 63.7 dBA was recorded, Caltrans was violating their own Noise Protocol which requires a detailed analysis for receivers which are within 5 dBA of the accepted NAC of 67 dBA.

Response

The noise investigation at 21 La Vista Way was complete. However, this location is included in the upcoming noise evaluation.

Comment 110

Caltrans has forgotten that part of its responsibility to the public is provide equal protection under the law.

Response

Having followed all Caltrans and FHWA noise guidelines and regulations, Caltrans has met its mandates.

Comment 111

In 1995, Matt Htoo assured me my comments would be addressed. Later, Ken Van Velsor assured me that my comments were being included in both the DEIR/S and the FEIR/S. It appears my comments have been repeatedly and maliciously omitted from the public record. I do not understand why? My questions and concerns were legitimate and real concerns regarding noise and noise abatement.

Response

All relevant noise comments by Mr. Cooper have been taken into account and addressed.

Comment 112

I have concerns about Caltrans policies and procedures and what appeared, at times, to be a lack of process or, at the very least, the enforcement of or slovenly attitude towards it.

Response

Caltrans follows FHWA policies and procedures very closely.

Comment 113

My letter to Caltrans in 1995 shows that not only was Caltrans aware of potential problems of reflected noise and multiple reflections back in 1980, they quoted the FHWA guidelines which identified these problems under references in the 1980 Draft of the EIR. Apparently, Caltrans still can't remember or understand that walls reflect noise. They've never been able to measure it, nor can they recognize the walls that are at a ratio of less than 10:1 --- including the San Rafael walls.

Response

All studies of reflective noise have shown no reflection problems. In fact, there has been no noticeable, reflective noise data presented to Caltrans. All the noise studies conducted by Caltrans and others have not shown a noticeable noise increase due to reflections

Comment 114

The last seven pages of my 1995 letter included 63 individual questions. None of which were acknowledged or answered.

Response

Mr. Cooper's letter of 1995 was written in response to Caltrans Noise Impact Report of December 1980 and other outdated documents. The most current Noise Impact Report was prepared in June 1997 based on current technology and procedures.

Comment 115

Why wasn't the following 26 page letter, which was sent to Caltrans by certified mail in 1995, included in any of the environmental documents?

Response

As stated above, Mr. Cooper's letter of 1995 is outdated and makes reference to documents that were based on much older technology and outdated guidelines and procedures.

Comment 116

What happened to the reference material (including correspondence) which was included with the letter?

Response

Caltrans has no knowledge of such reference material.

Comment 117

What other documents or critical information were left out of the DEIR/S and the FEIR/S.

Response

Caltrans has incorporated all relevant information regarding noise in the FEIS/R.

20 Barbara Salzman, Marin Audubon Society

By letter dated March 19, 2000, Barbara Salzman, Marin Audubon Society, stated:

Comment 1

The reversible HOV lane alternative appears to have the most traffic benefits and least environmental impacts.

Response

Your comment is noted and appreciated. Thank you for taking the time and effort to review the FEIS/R and for contributing to the public process by sending your comments.

Comment 2

There will be permanent impacts to Corte Madera Creek from increased shading and direct loss of creek water area and substrate resulting from the installation of 20 to 28 pilings. No mitigation is provided for these impacts, apparently because no agency is requiring mitigation. When considered together with the already very extensive impacts that have occurred along Corte Madera Creek, these impacts are indeed significant. Compensation should be provided for any impacts in this sensitive and heavily impacted creek. . Mitigation should consist of restoring a currently nontidal area to tidal action in the vicinity of the project site. We would be happy to assist in identifying such a site.

Response

Caltrans welcomes the participation of individuals and organizations with local expertise in identifying appropriate mitigation sites.

Caltrans and Federal Highway Administration (FHWA) have consulted with the U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Fish and Wildlife Service, National Marine Fisheries Service, San Francisco Bay Conservation and Development Commission and Department of Fish and Game over the proposed activities in and adjacent to Corte Madera Creek.

The U.S. Coast Guard will assume jurisdiction over the bridge widening activities at Corte Madera Creek under Section 9 of the Rivers and Harbors Act, see United States Coast Guard Letter in Appendix C of the FEIS/R. As discussed in the *FEIS/R*, the impact of 20 piles (approximately 64 square feet or 0.0014 acre) is a minimal effect and Caltrans and FHWA do not propose to provide mitigation. Caltrans will cooperate with jurisdictional agencies to address all permit requirements, including appropriate mitigation if subsequently required, for activities at Corte Madera Creek.

The tidal wetlands and the adjacent isolated wetlands at this site will be fenced as an environmentally sensitive area (ESA). There will be no impact on these wetlands.

Comment 3

Relocation of the NWPR corridor in San Rafael would also cause the loss of Oak/Bay Woodland. The EIS should demonstrate how the habitat value of the mitigation area would be the same as or be better than existing woodlands and how this mitigation area would be protected in perpetuity?

Response

Caltrans works closely with the resource agencies to determine the appropriate mitigation ratios, strategies and success criteria to replace lost habitat functions and values. Typically, Caltrans manages its mitigation sites until the success criteria have been met. At that time, a public agency, or organization, is deeded the property under an MOU to manage it for the enhancement of the natural habitat functions and values and its preservation in perpetuity.

Comment 4

In the FEIS/R, Stellar Jays are noted as inhabiting oak/bay woodland. Stellar Jays inhabit conifer trees. It is unlikely they would be in oak/bay woodland unless this woodland also has Redwoods.

Response

Common to pine-oak woodlands and coniferous forests, the Stellar's Jay observed in the project area may have been a bird in passage.

Comment 5

Steelhead have been observed during winter spawning season in Corte Madera Creek.

Response

Caltrans has consulted with National Marine Fisheries Service, U.S. Fish and Wildlife Service and Department of Fish and Game regarding the occurrence of Salmonids in Corte Madera Creek. As long as in-water work is restricted to designated work windows the project may proceed with no adverse effect to steelhead.

Comment 6

The EIS should discuss why the residents of the Lincoln Avenue must be relocated at the onset of the project. Since their relocation is needed to accommodate rail, not the Gap Closure project, why couldn't they remain in their homes until it is known whether or not a rail system will even be built?

Response

Caltrans shares the concern about affordable housing. In consultation with the Golden Gate Bridge, Highway and Transportation District, a plan to replace the Northwestern Pacific Railroad (NWPR) corridor has been conceptually developed. The support for a commuter rail service in the US 101 corridor in Marin and Sonoma Counties, including the completion of the draft final report of the *S.M.A.R.T. Commuter Rail Implementation Plan* and the rail funding in the Governor's Transportation Congestion Relief Plan, is growing. This support for rail service necessitates that Caltrans secure the replacement right of way expeditiously, prior to the construction of the southbound HOV lane in the Brookdale and Lincoln Avenue areas. The replacement of the rail right of way will include all necessary demolition of homes and properties acquired by Caltrans.

Comment 7

The discussion of the availability of replacement dwellings should be revised in the light of the current housing demand and shortage in Marin and the Bay Area. We wonder if replacement dwellings will be available.

Response

A review of sources of information for the evaluation of property availability showed that there are adequate replacement properties for owner-occupied single family residences and tenant-occupied apartments in the City of San Rafael. If it would be necessary to go to a secondary replacement area to find replacements for rental duplexes and single family residences, the secondary area would be Larkspur, San Anselmo and Fairfax. A survey of available commercial properties reveals that there are also adequate available sites for displaced businesses both for sale and lease in the City of San Rafael.

The Marin 101 HOV Lane Gap Closure Project will not divide existing neighborhoods or adversely affect important cultural or religious facilities. There are comparable replacement dwellings for the residential and commercial properties that are required for freeway widening. The adverse economic impacts are minor and temporary. The proposed project does not have significant socioeconomic impacts. Relocation assistance and information is available pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The Uniform Relocation Act benefits for all displaced persons, businesses, nonprofit organizations, etc. are more fully described in Appendix H of Volume I of the FEIS/R.

21 Jan and Christina Bryant

By letter dated march 19, 2000, Jan and Christina Bryant stated:

Comment 1

The homes directly adjacent to the freeway are not the only noise-affected areas as represented in the report. There is no identification of the present or the future noise impact in the hillsides. It is almost as if you refuse to acknowledge or admit that there is a noise problem at all.

Response

The comments you provided are noted and appreciated. . The upcoming noise evaluation will study the noise issue in the hillsides. Caltrans, along with Marin citizens Patrick Murphy, Bob Cooper, and Simon Palmer, and the Marin CMA are working to define the details of the scope of this noise investigation.

Comment 2

The spot noise readings in your report were presented as 24-hour test readings and they're not. Data obtained from other area testing has been reported as specific to our site.

Response

Spot readings were taken at the peak hour and represent the peak noise level. Twenty-four hour noise measurements are not necessary. All reflected noise studies conducted in accordance with the noise guidelines and procedures. These studies are applicable to all locales, including San Rafael.

Comment 3

From the dates given in the report, it's obvious you used old outdated studies and tests.

Response

The Noise Impact Report of June 1997 was based on the latest, state-of-the-art technology.

Comment 4

It appears you did not even consider Federal and State guidelines regarding noise issues with regard to this project.

Response

All State and Federal guidelines and regulations regarding noise were followed very closely.

Comment 5

There is mention of only one of the hundreds of letters sent to Caltrans from this community.

Response

All the letters received from the public on the issue of reflective noise in the hillsides were identical. Therefore, only one of those letters was referenced in the FEIS/R.

Comment 6

Lincoln Ave. is represented as a Class II Bicycle Lane. There is no bike lane on Lincoln Ave.

Response

You are correct. Most of the bike routes shown on Figure 9, "Existing Bike Lanes" in Volume I of the FEIS/R are proposed. Under Section 3.12.5, "Non-Motorized Transit" in Volume I, the FEIS/R acknowledges that "existing and proposed trails were included in the traffic study area." Caltrans was concerned that labeling the accompanying figure as "proposed and existing" trails would misrepresent Caltrans as proposing the construction of these bike lanes as part of the 101 HOV Gap Closure Project. The bike trail improvements throughout San Rafael are outside of scope of the Marin 101 HOV Lane Gap Closure Project. Caltrans apologizes for confusion regarding Figure 9.

22 Elise Heitur, Bicycle Commuter

By letter dated March 20, 2000, Elise Heitur, a bicycle commuter, stated:

Comment 1

I do not believe that increasing the capacity of the US 101 corridor will have any long-term effect on the recurring congestion.

Response

Your comment is noted. There is no single solution to the traffic congestion problem. The purpose of the Marin 101 HOV Lane Gap Closure Project is to relieve recurring peak period traffic on US 101 by completing the HOV lane system between the Richardson Bay Bridge and Route 37. By encouraging multi-occupancy vehicles, the project would relieve peak period congestion and benefit other modes of transport; buses and ferries, for example.

Comment 2

Scarce transportation funds should be spent on alternative forms of transportation, such as buses and bike lanes, and on marketing and encouraging the use of alternatives to the single occupant automobile.

Response

Thank you for your comment. The Federal Highway Administration, the Metropolitan Transportation Commission and Caltrans all concur on the need to encourage multi-occupancy vehicles, carpools and vanpool, buses and ferries, etc. The US 101 HOV lane system in Marin County is one of the traffic control measures used encourage the use of alternatives to the single-occupant vehicles. See the response to Comment 1 above.

Comment 3

I am opposed to the loss of housing that will result from the project.

Response

Caltrans shares the concern about affordable housing. As described in Volume II of the FEIS/R, consideration will be given to assembling parcels, moving existing structures, the use of excess right of way for lost parking and other uses. However, support for a commuter rail service in the US 101 corridor in Marin and Sonoma Counties is growing. This includes the completion of the draft final report of the *S.M.A.R.T. Commuter Rail Implementation Plan* and the rail funding in the Governor's Transportation Congestion Relief Plan, among others. This support for rail service necessitates that Caltrans secure the replacement right of way expeditiously, prior to the construction of the southbound HOV lane in the Brookdale and Lincoln Avenue areas. The replacement of the rail right of way will include all necessary demolition of homes and properties acquired by Caltrans.

Evaluation of property availability in the FEIS/R showed that there are adequate replacement properties for owner-occupied single family residences and tenant-occupied apartments in the City of San Rafael.

Comment 4

The HOV lane gap should be inexpensively closed by converting an existing lane to HOV use.

Response

Section 2.3.11, "Convert Existing Lanes to HOV Lanes Alternative" in Volume I of the FEIS/R discusses this option. To convert an existing mixed-flow lane to an HOV lane would further exacerbate the congestion in the mixed-flow lanes as well as the HOV lanes. It would increase the queue length through the study section for mixed-flow traffic, and would increase the time it takes for southbound HOVs to reach the beginning of the HOV lane system at Route 37. The increased congestion would worsen air quality. Due to these negative characteristics, this alternative was dropped from further consideration.

23 Friends of Brookdale Avenue

By letter dated March 17, 2000, Friends of Brookdale Avenue stated:

Comment 1

The FEIS/R does not identify different alternatives as required by NEPA. The three Build Alternatives are steps on the road to the Ultimate HOV Lane Gap Closure Project. The three Build Alternatives are actually only one alternative, the Ultimate Project, built in stages dependent on available funding.

Response

Thank you for your comment. All three of the Build Alternatives included in the FEIS/R are viable alternatives that meet the project purpose and need and contribute to the completion of the HOV lane system in the US 101 corridor. They each have different positive and negative attributes. Whether any or all of the features included only in the Ultimate HOV Lane Gap Closure Alternative are eventually constructed is uncertain.

Comment 2

The Southbound/Reversible HOV Lane Gap Closure Alternative should be evaluated and compared as a "stand-alone" alternative without features required for the Ultimate Alternative.

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. The features included in the FEIS/R for the Southbound/Reversible HOV Lane Gap Closure Alternative are required for that project. Caltrans will acquire right of way from property owners on Brookdale and Lincoln Avenues for the relocation of the rail corridor to the west. The NWPR corridor is a major public transportation facility and must be relocated to a location that will provide flexibility for further highway and/or rail improvements and ensure that the rail facility will not have to be relocated again.

Comment 3

Despite identifying the Southbound/Reversible HOV Lane Gap Closure Alternative as the Preferred Alternative, the FEIS/R does not conclude that the Southbound/Reversible HOV Lane Gap Closure Alternative is the Preferred Alternative. The document clearly intends the goal to be an the Ultimate Alternative; an alternative that has not been selected, is not funded, has not been approved by local officials, and is not part of any local, regional, or state plan.

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. The Ultimate HOV Lane Gap Closure Alternative was not identified as the Preferred Alternative in the Final Environmental Impact Statement/Report and is not the approved alternative of this Record of Decision. A supplemental or a new environmental compliance process will be required prior to construction of the Ultimate HOV Lane Gap Closure Alternative.

Comment 4

If the Southbound/Reversible HOV Lane Gap Closure Alternative is the Preferred Alternative, then features required for the Ultimate Alternative, for example, right of way, should not be included as a feature in the Preferred Alternative. Otherwise, the Ultimate Alternative should be selected as the Preferred Alternative.

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. Section 2.2, "Alternatives Considered," and Table 1, "Comparison of Alternatives," both in Volume I of the FEIS/R, indicate the required right of way for the Southbound/Reversible HOV Lane Gap Closure Alternative. Caltrans will acquire property from property owners on Brookdale and Lincoln Avenues for the relocation of the rail corridor to the west. The NWPR corridor is a major public transportation facility and must be

relocated to a location that will provide flexibility for further highway and/or rail improvements and ensure that the rail facility will not have to be relocated again.

Comment 5

There is no evaluation or comparison of the land in the Brookdale and Lincoln areas or the costs for the land that is actually required for each of the other two alternatives; only the Ultimate Alternative land requirements are presented.

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. Section 2.2, "Alternatives Considered" indicates significantly different right of way costs for the Ultimate HOV Lane Gap Closure Alternative than for the other two alternatives, \$31,700,000 compared to \$22,361,000 for the Southbound/Reversible HOV Lane Gap Closure Alternative.

Comment 6

The conclusion in the FEIS/R that comparable housing for the relocation of residents is available and that the relocations are not a significant impact is doubtful. The basis for this conclusion may rely on the information that is several or many years old. The analysis needs to be based on the current housing situation and economy. The relocated residents will be searching for housing in the current housing crunch.

Response

A review of sources of information for the evaluation of property availability showed that there are adequate replacement properties for owner-occupied single family residences and tenant-occupied apartments in the City of San Rafael. If it would be necessary to go to a secondary replacement area to find replacements for rental duplexes and single family residences, the secondary area would be Larkspur, San Anselmo and Fairfax.

The residents to be displaced will be assigned a relocation advisor to see that all payments and benefits will be fully utilized. The program could include moving costs, purchase supplements, rental supplements, last resort housing and other information. Each resident will be made aware of their rights, entitlements and eligibility under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Appendix H of Volume I of the FEIS/R has a fuller discussion of the relocation process.

There are comparable replacement dwellings for the residential and commercial properties that are required for freeway widening. The adverse economic impacts are minor and temporary. The proposed project does not have significant socioeconomic impacts. Relocation assistance and information is available pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Comment 7

There is no discussion on the effects of removing a block of single family homes and many rental units from the housing supply in central Marin County. The effects of the proposed loss of housing needs to be addressed.

Response

Caltrans shares the concern about affordable housing. In consultation with the Golden Gate Bridge, Highway and Transportation District, a plan to replace the Northwestern Pacific Railroad (NWPR) corridor has been conceptually developed. The support for a commuter rail service in the US 101 corridor in Marin and Sonoma Counties, including the completion of the draft final report of the *S.M.A.R.T. Commuter Rail Implementation Plan* and the rail funding in the Governor's Transportation Congestion Relief Plan, is growing. This support for rail service necessitates that Caltrans secure the replacement right of way expeditiously, prior to the construction of the southbound HOV lane in the Brookdale and Lincoln Avenue areas. The replacement of the rail right of way will include all necessary demolition of homes and properties acquired by Caltrans.

The evaluation of property availability in the FEIS/R showed that there are adequate replacement properties for owner-occupied single family residences and tenant-occupied apartments in the City of San Rafael. If it would be necessary to go to a secondary replacement area to find replacements for rental duplexes and single family residences, the secondary area would be Larkspur, San Anselmo and Fairfax.

As discussed in the FEIS/R, There are comparable replacement dwellings for the residential and commercial properties that are required for freeway widening. The adverse economic impacts are minor and temporary. The proposed project does not have significant socioeconomic impacts. Relocation assistance and information is available pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Comment 8

These issues are primarily intertwined in the Caltrans decision that their goal is the Ultimate Alternative. There is no justification presented in the Final Environmental Impact Statement/Report, or anywhere else, for this decision.

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. As a part of this alternative, Caltrans needs to relocate the rail corridor and to provide flexibility for planned highway improvements. Whether these highway improvements include an additional HOV lane, an additional auxiliary lane, and/or standardizing lane and shoulder widths or other improvements is currently undetermined.

24 Donald Wilhelm

By letter stated March 19, 2000, Donald Wilhelm stated:

Comment 1

What is lacking in the existing design is a fly over from WB I 580 to SB US 101. There have been frequent discussions of closing down San Quentin Prison and building workforce housing on the site and of relocating the Larkspur Ferry Terminal to San Quentin Point. All traffic from San Quentin and Richmond heading for Western and Southern Marin will have to travel on Sir Francis Drake Blvd.

I recommend that the new SB US 101 to EB I 580 flyover design be such that a WB I 580 to SB US 101 flyover can be added at a future date without major reconstruction.

This may be a matter of shifting the alignment of the eastern end of the flyover either north or south to permit the addition of a left side or right side exit ramp on WB I 580.

Response

Thank you for your interest in this project. Unfortunately a westbound I-580 to southbound US 101 flyover was not originally analyzed as an element of the Marin 101 HOV Lane Gap Closure Project. As such, it was not part of any Traffic Study Report for this project.

Your comment is noted for future design projects. Thank you for bringing it to our attention. Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. Section 2.2.4, "The Southbound/Reversible HOV Lane Gap Closure Alternative," in Volume I of the FEIS/R does include replacing the southbound US 101 to eastbound I-580 connector. The northbound US 101 to eastbound I-580 connector is a feature of the Ultimate HOV Lane Gap Closure Alternative which is not the selected alternative. Features of the Ultimate Alternative would provide additional improvements and congestion relief beyond the Southbound/Reversible Alternative and may become future projects on US 101 and I-580. These include improvements to I-580 including a new intersection on I-580 at Irene Street; a northbound US 101 to eastbound I-580 connector; and possibly, as you suggest, a westbound I-580 to southbound US 101 connector. Although these improvements are considered necessary to relieve existing and proposed traffic congestion, they are not part of the current project.

25 Dotty LeMieux, Sierra Club, Marin Group

By letter dated March 17, 2000, Dotty LeMieux, Sierra Club, Marin Group, stated:

Comment 1

The goal of Caltrans to implement the Ultimate HOV Lane Gap Closure Alternative differs from that of local elected officials, the Congestion Management Agency and the populace. Their goal is the reversible HOV lane. There is no justification in the EIR/EIS for the full two lanes, rather than one reversible lane.

Response

Your comments are appreciated. Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. The Ultimate HOV Lane Gap Closure Alternative was not identified as the Preferred Alternative in the Final Environmental Impact Statement/Report and is not the approved alternative of this Record of Decision. A supplemental or a new environmental compliance process will be required prior to construction of the Ultimate HOV Lane Gap Closure Alternative.

Comment 2

The EIR/EIS fails to show whether any lesser "take" of residences along the freeway could be accomplished through the single reversible lane. Nor is there an adequate discussion of the encroachment of the reversible lane into the railroad right of way. Because the impacts of the reversible single lane are not discussed, the alternatives section is flawed and must be revised.

Response

Caltrans and the FHWA have identified the Southbound/Reversible HOV Lane Gap Closure Alternative as the selected alternative. Section 2.2, "Alternatives Considered," and Table 1, "Comparison of Alternatives," both in Volume I of the Final Environmental Impact Statement/Report, indicate the required right of way for the Southbound/Reversible HOV Lane Gap Closure Alternative.

Caltrans will acquire rights of way from property owners on Brookdale and Lincoln Avenues for the relocation of the rail corridor to the west. The NWPR corridor is a major public transportation facility and must be relocated to a location that will provide flexibility for further highway and/or rail improvements and ensure that the rail facility will not have to be relocated again.

Comment 3

There is no analysis of the visual impact of widening the San Rafael Viaduct. Nor is the impact on the viaduct from the reversible single lane discussed.

Response

The *Visual Resources Technical Report*, referenced in Volume I of the FEIS/R evaluated the general widening of the San Rafael Viaduct structure as a feature of the Ultimate HOV Lane Gap Closure Alternative. It concluded that the widening would increase shade and limit potential planting options beneath the viaduct and that any loss of natural light could be compensated for by the addition of artificial lights if necessary. The report concluded the effects of the widening of the viaduct structure would be minor.

Comment 4

The issue of reflective noise, particularly multiple reflective noise, receives scant attention. No mitigation is discussed. The document refers to the future studies, which is impermissible under California's Environmental Quality Act. This issue deserves far greater analysis before being accepted

Response

All studies of reflective noise have shown no reflected noise problems. In fact, there has been no data of noticeable, reflective noise presented to Caltrans. All the noise studies conducted by

Caltrans and others have not provided any verification of a noticeable noise increase due to reflections.

However, Caltrans and the Marin CMA have committed to further evaluate the noise issue in the hillsides. An independent consultant will soon begin a noise investigation in the hillsides.

Comment 5

The map showing bicycle lanes is flawed, and needs revision

Response

Your observation is correct. Most of the bike routes shown on Figure 9, "Existing Bike Lanes" in Volume I of the FEIS/R are proposed. Under Section 3.12.5, "Non-Motorized Transit" in Volume I, the FEIS/R acknowledges that "existing and proposed trails were included in the traffic study area." Caltrans was concerned that labeling the accompanying figure as "proposed and existing" trails would misrepresent Caltrans as proposing the construction of these bike lanes as part of the 101 HOV Gap Closure Project. The bike trail improvements throughout San Rafael are outside of scope of the Marin 101 HOV Lane Gap Closure Project. Caltrans apologizes for confusion regarding Figure 9.